Blast Chillers Blast Freezers Guide

Unlock the secrets to maximizing kitchen efficiency and food quality with this comprehensive guide

Sydney Commercial Kitchens

What you can do?

The truth is you can blast chill or shock freeze just about anything that can be produced in a kitchen. This includes both raw foods and cooked foods.

Soups and Sauces

Blast chilling soups and sauces helps lock in flavor, color, and consistency while cooling them rapidly to a safe holding temperature. It improves food safety, extends shelf life, supports batch preparation, and allows kitchens to deliver the same quality result during busy service periods.

Rice and Pasta

Blast chilling pasta and rice dishes helps cool them quickly and safely while preserving texture, structure, and serving quality. It supports batch preparation, improves food safety, extends holding time, and helps kitchens stay consistent and efficient during busy service periods.

Fish Dishes

Blast chilling fish helps lock in freshness, moisture, texture, and appearance while rapidly bringing it down to a safe holding temperature. It improves food safety, extends shelf life, reduces waste, and helps kitchens prepare seafood ahead without compromising quality.

Meat Dishes

Blast chilling meat dishes helps lock in moisture, texture, flavor, and appearance while cooling them rapidly to a safe holding temperature. It improves food safety, extends shelf life, reduces waste, and allows kitchens to prepare meats in advance without sacrificing quality at service.

Vegetables

Blast chilling helps preserve the taste, colour, aroma, and texture of vegetables, keeping them closer to their just-picked or freshly cooked quality. Shock freezing also allows operators to buy in season, store produce for longer, and keep quality vegetables ready for use when needed.

Desserts and Confectionery

Blast chilling helps preserve the freshness, aroma, appearance, and structure of freshly baked desserts. It is ideal for batch preparing pies and mini tarts, while delicate shock freezing cycles can also handle items like chocolates, mousses, and ice cream without compromising their quality.

Bread and Pastries

Use dedicated proving cycles for bread and pastries, then blast chill after baking to maintain a fresh, aromatic daily supply. Blast chilling cools and freezes quickly without damaging structure or causing the “igloo effect,” where the outside chills faster than the center and traps heat inside.

8 Reasons why blast chilling or blast freezing will transform your food management

1. Food Tastes Better

Dishes chilled or frozen incorrectly can destroy their texture, flavour and appearance. Irinox preserves premium quality, so you can charge premium prices.

2. Improved Food Safety

Maintain food safety, support HACCP compliance, and keep products fresher for longer by cooling them rapidly and correctly. Blast chilling also removes the need to cool food on benches or place warm items into a conventional refrigerator alongside chilled products.

3. Labour Cost Savings

Labor cost savings come from doing more prep in advance and reducing pressure during service. A blast chiller lets kitchens cook in larger batches, chill food safely, and hold it for later use, so staff are not forced to prepare everything at the last minute.

4. Lower Food Costs

Buy produce in bulk when seasonal pricing is lower, then blast chill or freeze it for use later. This helps reduce ingredient costs, improve planning, and keep quality stock on hand for longer.

5. Prepare Foods Faster

A blast chiller helps speed up kitchen production because food can be cooled immediately after cooking, without waiting for it to naturally lose heat first. Instead of leaving trays on benches or tying up fridge space with hot food, staff can take products straight from the oven or stovetop and move them into the blast chiller. That saves time, improves workflow, and keeps the kitchen moving.

The benefit is that kitchens can: turn cooked food around faster, batch prepare more efficiently, free up bench and refrigeration space, reduce delays between cooking, cooling, and storage and stay better organized during busy prep periods

6. Batch Prepare Ahead Of Time

Large quantities of food can be pre-prepared days or weeks in advance, then blast chilled or shock frozen to allow for rostered days off and demand spikes.

7. Reduce Waste

In a commercial kitchen, up to 40% of food can be thrown out.Blast chilling technology reduces waste dramatically, by allowing better planning and significantly longer preservation of fresh and pre-prepared food.

8. Longer Shelf Life

With bacteria formation being eliminated during blast chilling and shock freezing, food can be preserved in pristine condition for up to three times longer.

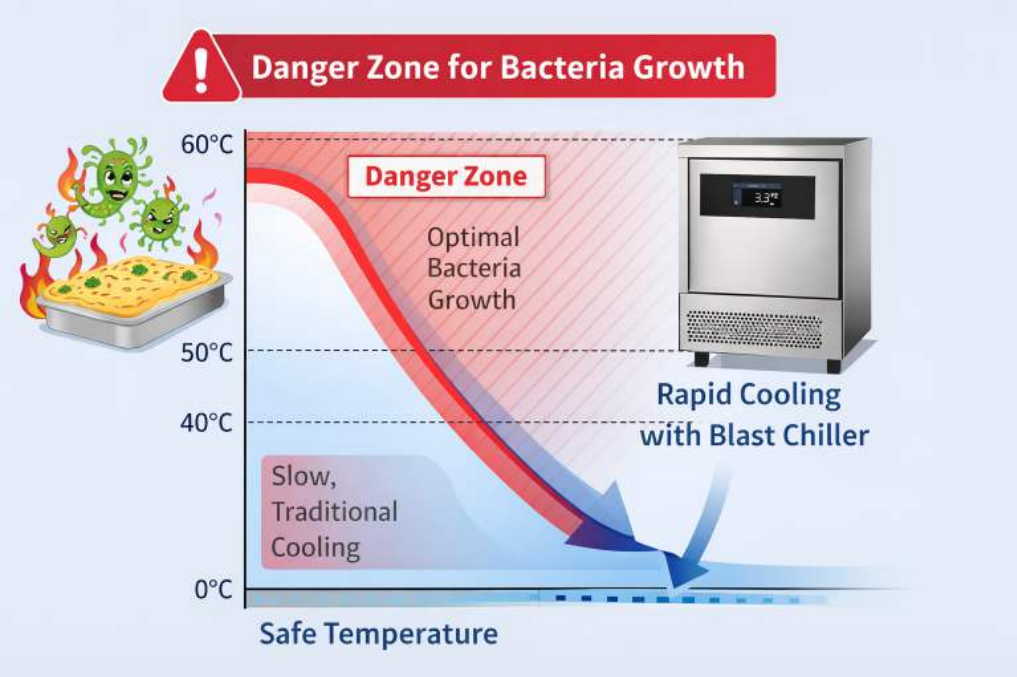
Understanding the Issue

At certain temperatures, naturally occurring bacteria in food can multiply quickly and reach harmful levels, especially in high-protein items. While cooking kills bacteria, food prepared in bulk for later service can become unsafe if it is not cooled quickly and correctly after cooking.

Older cooling methods often relied on ice baths, which take extra space and labor, or coolrooms, which can cool food too slowly. Placing hot food into a coolroom can also raise the cabinet temperature and put other stored products at risk.

For this reason, slow cooling methods are no longer considered best practice, particularly where food safety and compliance are a priority.

The Danger Zone



In addition to greater control over the preparation and storage of foods by passing them through the danger zone more rapidly, blast chillers provide a new tool in the kitchen which can be useful to increase efficiency in production and labour utilisation as well as improve shelf life, stability and variety of food offered by the venue.

The demographics most at risk to foodborne illnesses are the young, the elderly and those with an impaired or weakened immune system, typically in an institution or fed from a central production kitchen.

By moving food through the danger zone more quickly, blast chillers give kitchens better control over food preparation, cooling, and storage. They also improve production efficiency, support better labor use, extend shelf life, and make it easier to offer a wider and more consistent range of menu items.

This is especially important in environments serving people who are more vulnerable to foodborne illness, including the young, the elderly, and those with weakened immune systems, such as in hospitals, aged care facilities, and central production kitchens.

What you need to know!

Blast chilling is the process of cooling food rapidly to a temperature that is much safer for storage and less favorable to bacterial growth. Because bacteria multiply fastest in the temperature danger zone, moving food through this range quickly is critical for food safety.

In practice, blast chilling reduces the core temperature of cooked food from hot to chilled conditions in a controlled, rapid cycle, while blast freezing takes food down to a frozen state just as quickly.

This helps preserve food safely for later service without compromising quality. Blast chilling is widely used in commercial catering because it supports both food safety and product quality.

Once food has passed through the danger zone and reached the correct holding temperature, it can then be transferred to a refrigerator, coolroom, or freezer until needed.

It is also an important part of modern HACCP-based kitchen operations, helping businesses improve compliance, consistency, and control across food production and storage.

Blast Chilling

Blast chilling is designed for short to medium-term fresh storage, typically up to one week, or longer when food is vacuum sealed under the right conditions. It is the fastest way to take food from hot to chilled safely, without waiting for it to cool naturally first.

Shock Freezing

Shock freezing is designed for rapid freezing and longer-term storage while helping preserve the food's original structure, texture, and quality. It allows even delicate products to be frozen quickly, correctly, and safely without the damage often caused by slower freezing methods.

The Future of Food

Using blast chilling as part of a cook/chill process helps kitchens better manage resources and streamline operations. It is widely used in large-scale environments such as hospitals, institutions, hotels, and function centres.

With modern blast chilling technology, cook/chill is increasingly replacing traditional methods of cooking and holding food hot, which can often lead to overcooked or inconsistent meals. Instead, chefs can prepare large volumes of food in advance, chill it quickly, and store it safely for later service.

This approach improves efficiency by allowing food to be cooked at convenient times rather than during peak pressure periods.

Once blast chilled, meals can be stored in a coolroom and regenerated when needed, ensuring consistency and quality regardless of when they were prepared.

Cook/chill also helps optimise labour. For example, in hospitals, meals for different services can be prepared at any time, reducing the need for staffing during early mornings or late nights. In hotels and function venues, dishes for large events can be plated in advance, allowing faster service and enabling chefs to focus more on presentation rather than last-minute cooking.

Preparing food ahead of time—such as curries, casseroles, schnitzels, or roasted vegetables—makes better use of kitchen time and resources. However, this process relies on rapid and safe cooling. Food left to cool slowly within the temperature danger zone can deteriorate in quality and increase the risk of bacterial growth.

A blast chiller rapidly reduces food temperature to safe levels, minimising this risk while preserving texture, flavour, colour, and nutritional value. It also stops the cooking process immediately, ensuring the food remains exactly as intended by the chef.

Before service, chilled food is brought back to serving temperature through a process known as rethermalisation. This typically involves using a combi oven, which gently reheats food using a combination of steam and dry heat without overcooking it.

By combining blast chilling with regeneration, kitchens can consistently deliver high-quality meals while operating more efficiently. This transforms a traditional kitchen into a smarter, more controlled, and more productive operation.

Brands we recommend

Everlasting Blast Chillers

Everlasting Blast chillers and freezers are essential allies in professional kitchens as they allow food to be frozen very quickly.

For this reason, we have made our range of professional food chilling products even more comprehensive, expanding it with new models in terms of both load capacity and available functions.

A prime example is the Multifunction Blast Chiller from our Professional line.

The option to choose between tray or trolley models makes these products versatile for every sector (catering, pastry, gelato, bakery, and pizza) and ideal for both small restaurants and large industrial laboratories.

At Everlasting, we specialize in professional refrigeration. Our edge lies in truly understanding the practicality and hands-on needs of today's catering professionals—people like you who demand reliability and efficiency. Always.

Friginox Blast Chilling and Freezing

Friginox blast chiller systems are designed with advanced technology to extend shelf life, maintain food quality, and reduce waste. They offer tailored blast chilling and freezing solutions for specialised applications including catering, bakeries, ice cream production, and pastry kitchens across Australia and New Zealand.

Built to support professional kitchens, Friginox equipment improves workflow efficiency while ensuring high food safety standards.

Bakers can freeze pre-risen products to save time, while ice cream producers benefit from dedicated hardening functions that deliver smooth, creamy textures.

Pastry chefs also gain greater control, with deep-freezing and precision refrigeration helping to streamline preparation and maintain consistent quality.

With fast yet gentle chilling cycles, Friginox blast chillers and freezers deliver reliable results across all types of products—whether raw or cooked, finished or semi-finished—preserving structure, texture, and overall product integrity.

Irinox Blast Chillers

IRINOX blast chillers are the ideal choice for professionals who need high performance, versatility, and precise control in the kitchen.

Designed to handle up to 14 functions and 150 cycles, the IRINOX multifunction blast chiller operates within a temperature range of -31 °F to +185 °F. With IRINOX, every stage of food preparation is optimised, ensuring superior quality, flavour, and safety.

MultiFresh® Next is the most powerful and efficient blast chiller on the market. IRINOX branded products represent revolutionary technology, guaranteeing unprecedented levels of customization, sustainability, power and innovation.

The blast chiller EasyFresh® Next in the kitchen is your indispensable ally in preserving the freshness, quality and safety of food. Thanks to its ability to rapidly chill or freeze, it allows you to keep organoleptic properties intact, optimise work processes and reduce waste, guaranteeing perfect dishes for every occasion.

Tecnodom Blast Chillers

The line of blast chillers is perfect for preserving and extending the average food life, thanks to the rapid lowering temperature which counteracts the formation of bacterial agents.

Tecnodom Blast Chillers provide maximum speed in the temperature reduction process.

Tecnodom blast chillers are generally associated with practical European-style refrigeration solutions aimed at commercial kitchens seeking straightforward operation and dependable performance.

As part of an updated guide, Tecnodom fits well for operators who want a professional blast chilling solution that supports safer cooling, prep-ahead production, and improved kitchen organisation.

They are worth considering where space, workflow, and value need to be balanced carefully.

Tecnomac Blast Chillers

The blast chilling process reached by using high-performances and technologically advanced blast chillers is the best method to prolong food and ingredients shelf-life, always granting freshness and fragrancy. The use of latest-generation blast chillers increases gastronomy, pastry and bakery activities productivity and efficiency, simplifying complex preparations stages and allowing to use a larger ingredients selection. Furthermore, this appliance is an essential instrument to complete ice-cream production cycle.

Tecnomac is a renowned manufacturer of commercial blast chillers. Having provided commercial refrigeration solutions since 1963, the company is dedicated to providing innovative, reliable solutions for food preservation. With a strong focus on quality and efficiency, Tecnomac designs products that take quality, creativity, and organisation to the next level.

Tecnomac provide expert solutions for food preservation with advanced commercial blast chillers.

Williams Blast Chiller/Freezers

Blast Chillers for the Real World Williams blast chillers and blast freezers are the perfect choice for caterers who cook and then chill or freeze food.

They are suited to every sector, including hospitals, pubs, airlines, schools, and event caterers. Ranging from the compact reach-in WBC10 (10kg capacity) to the mighty WMBC320 modular unit, Williams has a blast chiller to suit any space. All Williams blast chillers have advanced air flow, and easy to use controls making HACCP compliance as easy as 1,2,3. It's all part of our commitment to make refrigeration that's practical, efficient, reliable, tough, and fit for purpose.

Built for the real world!

Designed with heavy-duty, non-marking castors our blast chiller cabinets fit easily through a standard doorway, making positioning a breeze. Add in self-closing doors, anti-tip tray slides and removable racking and you have refrigeration that's easy to live with. Refrigeration built for the real world.

Frequently asked questions

What is the difference between a blast chiller and a normal refrigerator?
A normal refrigerator is designed to hold food at a safe storage temperature. A blast chiller is designed to rapidly remove heat from hot or freshly cooked food.

Can a blast chiller freeze food?
Some can. Models with shock freezing capability can rapidly freeze products for longer storage.

Is blast chilling only for large production kitchens?
No. It is useful anywhere food is cooked ahead, cooled for later use, or where consistency and food safety matter.

What foods can go into a blast chiller?
Cooked meats, sauces, soups, rice, pasta, desserts, bakery items, seafood, vegetables, and prepared meals are common examples.

Why not just cool hot food in a coolroom?
Standard coolrooms are not designed to pull heat out quickly enough, and hot food can raise the temperature of nearby stored products.

What is rethermalisation?
It is the controlled reheating of previously chilled food back to serving temperature, often done in a combi oven or similar equipment.

How do I choose the right size blast chiller?
Look at your busiest production period, the number of trays or kilograms per cycle, your tray format, and whether you need room for future growth.

Is a core probe important?
Yes, especially when product consistency matters. A core probe helps verify that food has reached the target temperature at its centre, not just on the surface.

Final note

The best blast chiller is not simply the biggest or the cheapest unit. It is the one that matches your menu, prep style, storage workflow, tray system, and service rhythm.

Sydney Commercial Kitchens can help compare brands, capacities, and use cases so you choose a solution that fits the way your kitchen actually works.

Want help choosing the right blast chiller for your kitchen? Call SCK now!

If you need more information on how a blast chiller or freezer will help your food business, please give us a call.

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