

Trident Refrigeration Ltd



Blast Chilling & Freezing the only way to ensure food safety and quality

Current food legislation requires that all food must be cooled as quickly as possible. This means that whenever food is chilled or frozen, it must be in the 'Danger Zone' between +8°C and +68°C, where bacteria multiply fastest, for as little time as possible. To achieve this, a specially designed Blast Chiller or Freezer is required- standard refrigeration equipment just isn't capable.

Why putting warm food in a refrigerator just won't suffice:

- Food quality is reduced by damage to surface texture, water loss and separation during a slow cool down
- Bacteria have time to multiply before a safe temperature is achieved
- Potentially damaging condensation is created, which can contaminate other food
- The refrigerators' temperature is raised, bringing other food into the 'Danger Zone'

What is Blast Chilling?

Department of Health Guidelines state that to safely blast chill food its temperature must be reduced from +70°C to +3°C or below within 90 minutes. The Foster range exceeds this requirement and can safely blast chill food even from a starting temperature of +90°C.

What is Blast Freezing?

The Blast Freeze process requires that food be reduced from a temperature of +70°C to -18°C in no more than 240 minutes.

How the Foster range works

- The high powered refrigeration system blasts cold air laterally over the product at high speed, extracting heat at an optimum rate, whilst maintaining food quality.
- Once the cycle is complete, the equipment switches into 'hold mode' to keep the food at the required temperature (+3°C if chilled, -18°C if frozen). This saves energy and allows you to leave the food in the unit, or move on to another batch.

the benefits

Quality

- Damaging bacteria is rendered dormant by the Blast Chill/Freeze process, minimising food spoilage.
- Blast Chilling swiftly brings down temperature, locking in colour, texture, flavour, structure and nutritional value.
- Delicate food surfaces such as pasta and fruit are protected, as rapid chilling stops an 'ice skin' forming which otherwise dehydrates and damages the product's appearance.

- When freezing food, the quicker the freezing process, the smaller the ice crystals that form within the cells, thus retaining a better quality and structure when thawed.

Reduced Food Wastage

- Kitchens with Blast Chillers or Freezers throw away less food. Servery leftovers, buffet dishes, salads and drinks can easily and safely be chilled with complete confidence, and product can then be reheated as required.

Kitchen Efficiency

- Blast Chilling allows you to prepare larger batches, and then chill or freeze some for later use. This makes for fewer (larger) batches, more efficient use of ovens, more predictable working hours and optimum use of your chef's time. It can even help you to increase your menu options.

For more information and advice or to receive your copy of our Blue Paper on this subject please call 0500 691122, email marketing@foster-uk.com or download it free of charge at:
www.fosterrefrigerator.co.uk/food_safety

The new Foster Blast Chilling range

making life easier

If you serve hot meals, then you will almost certainly benefit from using a Blast Chiller or Freezer. The Foster range offers a capacity to suit all volumes, from the small independent restaurant to a large-scale Cook-Chill operation.



SURF NAVIGATION:

Just Surf and Go

The display panel lets you use the click wheel and centre button to choose the programme you require, and just press to start. Simply Surf & Go - it couldn't be easier.

Food Surface Protection

Foster's Circulair™ air circulation system ensures that airflow is 'sucked through' rather than blown onto food, and flows in a horizontal direction. This means that cold air flows over - rather than directly at - the food surface. In addition the airflow is automatically controlled and adjusted during both the blast chill and the hold phases. This prevents an 'ice skin' from forming on the product and also stops 'wind chill' damage and dehydration to the food surface - thereby maintaining the visual appeal and the taste of the product.

Exceed your quality expectations

Now capable of blast chilling from +90°C exceeding UK and European food safety requirements and ensuring no damage is caused by a slow start to the chill process.

Unbeatable performance and energy efficiency

- Energy Saving Modes
- Automatic Defrost and Smart Defrost ensure maximum efficiency and performance
- Noise levels significantly reduced
- Robust and durable

Simple Programming Options

All models offer the following simple pre-set programmes:

- **Soft Chill** Soft Chill is ideal for the rapid but gentle chilling of any dish. This cycle brings the temperature of the food down to +3°C, whilst retaining a positive air temperature. This prevents large ice crystals forming which can damage the structure of delicate foods and high water contents such as vegetables, rice and pasta. Using this programme thereby maintains the texture, consistency and appearance of these foods with no dehydration or cell damage.
- **Hard Chill** general purpose chilling, ideal for standard chilling product such as cooked meat, pies, individually portioned meals etc. The new Foster range keeps the air temperature at -15°C for the first 70% of the cycle, to pull down temperature quickly. Air temperature is then increased for the last 30% of the cycle to stop surface damage and to ensure quality.
- **Hard Chill Max** To be used for high density or high fat content such as meat joints, portioned meals, stew, sous vide etc
- **Shock Freeze** any product to be frozen can be shock frozen to -18°C within 240 minutes.
- **Professional programmes** 3 programme options can be set up by the end user to suit their menu requirements - easy to set up for use whenever required.
- **Pre Chill** Ensures the correct temperature in the unit before chilling commences, to improve the cooling time.
- **Probe & Timed Chill/Freeze:** All programmes can operate either on time or by use of an intelligent probe. The probe method is ideal when you don't know the precise chilling time required. (The temperature probe automatically ends the programme at your required temperature and records the time taken for future reference). Timed programmes are perfect for items with regular throughput - just turn the dial to the time required and press to start.



● BCF 51



● BCF 21

Blast Chiller, Freezer & Thaw Cabinets

food safety first

The Foster tray loading cabinet range provides the ideal way to ensure quality and food safety is maximised in EVERY kitchen, large or small.

Choose from 11kg to 51kg chilling and freezing capacities.



- Blast Chiller and Blast Chiller/Freezer models available
- Capacities to suit all needs: From 11kg (40 portions) to 51kg (200 portions)
- Timed and probe chill functions
- 304 stainless steel exterior and interior
- All models take Gastronorm 1/1 trays
- All models are integral (remote option available)
- All products are supplied on lockable castors
- Front loads for easy access, cleaning and servicing
- Automatic hold function on all models
- 98 % recyclable
- Removable thermal break gives easy access to door frame heater. Patent Applied No. 0019596.6 (UK) No. 01306449.8 (Europe) No. 30384 (US)
- Self closing door, 90° dwell for easy loading and 180° door opening



Surf Navigation control - the easiest to operate blast chiller available



temperature probe as standard on all models



heavy duty, easy grip handle



new fan refrigeration system, more efficient and better performance



bottom mount refrigeration system ensures stability, reduces noise and improves performance

BC & BCF Blast Chillers & Freezers



- 4 capacities of Blast Chillers and Blast Chillers/Freezer ranging from 11kg to 51kg
- SURF NAVIGATION
- Foster's Circular air circulation system
- Info Update Screens show all you need to know
- HACCP software is available for data retrieval and management in both infra-red download and hard-wired dialogue system formats
- Coated coil - stops corrosion and prolongs refrigeration system life



FXBC11 Economy Blast Chiller

- Specialist product designed to chill food rapidly - HACCP compliant
- Chills food from 70°C to 3°C in 90 minutes
- Chilling capacity 10kgs
- Simple operation offering a choice of timed and probe chill
- Suitable for GN1/1 pans
- Stainless steel exterior and interior finish
- Easy to clean with no dirt traps

Controlled Thaw

- 70kg thawing capacity
- Thaw food safely from -18/-21°C to +1/+4°C
- Thaw cabinet alternates between circulating gentle heat and refrigeration, via special air ducting and fans, ensuring an even, speedy and safe thaw
- Thaw cycle takes approximately 7 hours based on maximum capacity and 25mm product thickness (thicker products will take longer)
- Overnight storage hold facility, so thawed food is ready for use when you want to use it
- Stainless steel dished base for easy cleaning



Trolley Loading Cabinet Blast Chillers

designed for combi trolley compatibility

new
Ipod-style
Digital
Temperature
Controller

Our new range of Roll-In Blast Chillers accept all standard combi trolleys, meaning less handling between cooking and chilling. No need to transfer or de-tray, simply wheel the combi trolley straight into the Blast Chiller.

RBC 20-60 Roll-In Blast Chiller

- Choose from the RBC 20-60 **unique**, integral and RBC 20-60R remote models
- Compatible with the Rational 20 rack GN 1/1 201 trolley
- Foster's Circularair system ensures uniform chilling and protects the food surface 
- Hard wearing, long life silicon gasket accommodates high in-going trolley temperatures
- Surf Navigation 
- Capable of blast chilling from +70°C to +3°C in 90 minutes, with entry temperature up to 90°C, exceeding UK and European food safety requirements

new



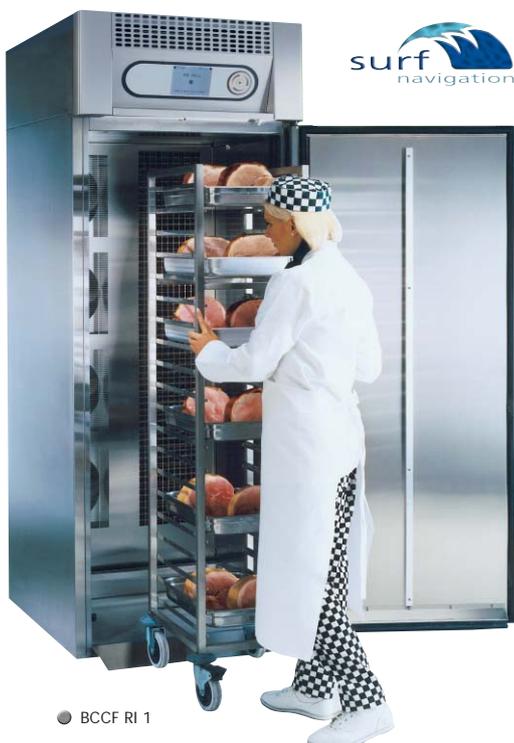
● RBC 20-60



supplied with robust food probe



Surf Navigation control - the easiest to operate blast chiller available



● BCCF RI 1

surf
navigation

BCCF RI 1 Roll-In Blast Chiller

- Ideal for small trolleys such as Gastronorm 1/1 size. 75kg chilling capacity, occasional 15kg freezing capacity.
- Coated coil - stops corrosion and prolongs refrigeration system life
- Tough and hygienic 304 grade stainless steel exterior and interior
- Robust internal stainless steel bumper bars to prevent trolley damage
- Heavy duty magnetic gasket - easy to clean and replace when necessary
- Designed for remote condensing unit so keeping excessive noise and heat out of the kitchen
- Foster's Circularair air circulation system 
- Alarm sounds and unit switches to automatic hold at end of cycle to keep the operator informed and food safe until it is needed
- Timed and probe chill functions
- Info Update Screen shows all you need to know
- HACCP software is available as an option in 2 formats for data retrieval and management

SURF NAVIGATION

Modular Blast Chillers & Freezers

for volume catering and processing



Our Modular Blast Chill/Freeze range is designed to cope with the multi-purpose requirement of the foodservice industry, and enables you to take control of the Cook-Chill Process.



interior coving for easy cleaning

emergency internal door release is easily operated even when the door is locked

protective internal trolley bumper bars



- 4 Blast Chiller/Freezer Models to choose from:

MBC 75: 75 kg chilling and nominal freezing capacity.

MBC 100: 100 kg chilling and nominal freezing capacity

MBC 150: 150 kg chilling and nominal freezing capacity

MBC 250: 250 kg chilling and nominal freezing capacity

- 2 different door opening widths available (700mm and 900mm) to suit all trolley requirements including combi-trolleys
- 3 one-trolley models and 1 two-trolley model
- Floorless application for blast chilling, 25mm built in floor available for blast freezing application
- SURF NAVIGATION
- Foster's Circulair air circulation system

- Temperature probe supplied as standard, 3 probe options also available
- Alarm sounds and unit switches to automatic hold at end of cycle to keep the operator informed and food safe until it is needed
- Robust white laminate exterior as standard (304 grade stainless steel option)
- Improved, wall mounted refrigeration system leaves the floor clear for cleaning
- Robust internal stainless steel bumper bars to prevent trolley damage
- New control panel facilitates easier access for operation and servicing
- Operator-friendly fans cut-out whenever door is opened
- Modular panel construction makes installation easy with minimum disruption

- Suitable for siting into a cold-room as a roll-through, giving complete temperature control
- 75mm modular panels for maximum efficiency and performance
- MBCF models supplied with built in pressure release for added safety
- HACCP software is available as an option in 2 formats for data retrieval and management



hinged panel allows access to fans for ease of cleaning and servicing

supplied with robust food probe

door/floor seal for increased refrigeration efficiency



Cabinet Blast Chillers & Freezers

BCF	11
Blast Chiller/Freezer range abbreviation	Capacity (kgs)

temperatures & capacities

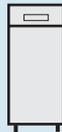
Dimensions (w x d x h) mm



Blast Chillers	BC 11	BC 21	BC 36	BC 51	FXBC 10
no. of shelves (GN 1/1) not supplied	3	6	10	14	3
load capacity (kgs) chill	11	21	36	51	10

Blast Chillers/Freezers	BCF 11	BCF 21	BCF 36	BCF 51
no. of shelves (GN 1/1) not supplied	3	6	10	14
load capacity (kgs) chill/freeze*	11	21	36	51

* For blast freezing application, these models are designed for occasional freezing; capacities stated are nominal and will be dependent upon product, type and density, loading etc.
- see below



Dimensions (w x d x h) mm 680 x 815 x 2080

Controlled Thaw (70kg)	CT 70
thawing capacity (kgs)	70
extraction rate (watts @ -8°C)	520
electrical supply (fuse rating per phase)	13
No. of shelves (GN 2/1)	10

NB: Frozen raw food and frozen cooked food must be thawed separately

* BC36 on 230/1/50/13A option - chilling capacity reduces to 30kg

Factors to consider when determining Blast Chill/Freeze time
Density, water content, and fat content all affect the time required to achieve temperature. Delicacy of the foods' structure and surface must be taken into account when selecting the programme required.
Weight loadings and the thickness of product should not be exceeded. Foster recommends a maximum loading of 3.75kg per Gastronorm 1/1 container.
Product that is hotter than the recommended starting temperature (90°C for Foster models) will obviously take longer to chill.
It is recommended that foods are not covered or lidded, as this will extend the time required. Use of deep containers will also extend the chilling time.
It is essential that good airflow passes over the product to facilitate even and consistent chilling. Foil should not be used to cover food.
Pre-chilling the cabinet before use will improve the chill time.

features and options

- Standard
- Optional

		FINISH	DOORS	REFRIGERATION	ELECTRICS	ACCESSORIES	HACCP
		304 stainless steel exterior/interior	304 stainless steel back & mesh unit cover	full solid door	left hand hinged door		
				R404a	R134a	remote option (legs supplied as standard)	hold facility
					230/1/50HZ 13A	230/1/50HZ 16A	400/3/50HZ
					60HZ	temperature probe	80mm castors (75mm for CT70)
						60mm castors	dished base with drain
							additional GN1/1 nylon coated shelf
							additional GN2/1 nylon coated shelf
							infra red download
							hardwired dialogue system
11	BC 11	●	●	●	●	●	●
	BCF 11	●	●	●	●	●	●
21	BC 21	●	●	●	●	●	●
	BCF 21	●	●	●	●	●	●
36	BC 36*	●	●	●	●	●	●
	BCF 36	●	●	●	●	●	●
51	BC 51	●	●	●	●	●	●
	BCF 51	●	●	●	●	●	●
	FXBC 10	●	●	●	●	●	●
	CT70	●	●	●	●	●	●

Roll-In Cabinet & Modular Blast Chillers & Freezers

MBC Modular Blast Chiller range abbreviation	75 Chilling Capacity (kgs)
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temperatures & capacities



863 x 1133 x 2250



980 x 862 x 2187



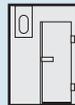
980 x 862 x 2187

Dimensions (w x d x h) mm

Roll-In Cabinet Blast Chillers	BCCF RI 1	RBC 20-60 (Remote)	RBC 20-60 R (Integral)
chilling capacity (kgs)	75	60	60
freezing capacity (kgs)*	15	-	-
trolley type (option)	Trolley	Rational 201 Trolley	Rational 201 Trolley
maximum trolley dimensions	680 x 640 x 1825	HGW201 (20 Rack): 522 x 809 x 1718 HGW201 (15 Rack): 522 x 809 x 1718 HGW201 (14 Rack): 522 x 827 x 1718 (standard baking tray 400 x 600mm)	HGW201 (20 Rack): 522 x 809 x 1718 HGW201 (15 Rack): 522 x 809 x 1718 HGW201 (14 Rack): 522 x 827 x 1718 (standard baking tray 400 x 600mm)
clear door opening (w x h)**	743 x 1835	435 x 1450	435 x 1450
approx depth door open	1950	1430	1430
extraction rate (watts @ -15°C)	5600	3800	3800
electrical supply	230/1/50/20A	400/3/50/16A	Foster Model: 230/3/50/13A fans & defrost Condensing Unit: 400/3/50/16A sep. supply

* For blast freezing application, these models are designed for occasional freezing; capacities stated are nominal and will be dependent upon product, type and density, loading etc. ** Inside door opening.

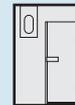
temperatures & capacities



1350 x 1330 x 2350



1550 x 1330 x 2350



1350 x 1330 x 2350

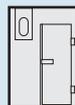


1550 x 1330 x 2350

Dimensions (w x d x h) mm

Modular Blast Chillers	MBC 75 (700mm Door Opening)	MBC 75 W (900mm Door Opening)	MBC 100 (700mm Door Opening)	MBC 100 W (900mm Door Opening)
Modular Blast Freezers	MBCF 75 (700mm Door Opening)	MBCF 75 W (900mm Door Opening)	MBCF 100 (700mm Door Opening)	MBCF 100 W (900mm Door Opening)
chilling capacity (kgs)	75	75	100	100
freezing capacity (kgs)*	75	75	100	100
maximum trolley dimensions	690 x 1040 x 1890	890 x 1040 x 1890	690 x 1040 x 1890	890 x 1040 x 1890
clear door opening (w x h)**	695 x 1898	895 x 1898	695 x 1898	895 x 1898
approx depth door open	2072	2272	2072	2272
extraction rate (watts @ -15°C)	7000	7000	8500	8500
electrical supply	230/1/50/20A	230/1/50/20A	230/1/50/20A	230/1/50/20A

temperatures & capacities



1350 x 1330 x 2350



1550 x 1330 x 2350



1350 x 2330 x 2350



1550 x 2330 x 2350

Dimensions (w x d x h) mm

Modular Blast Chillers	MBC 150 (700mm Door Opening)	MBC 150 W (900mm Door Opening)	MBC 250 (700mm Door Opening)	MBC 250 W (900mm Door Opening)
Modular Blast Freezers	MBCF 150 (700mm Door Opening)	MBCF 150 W (900mm Door Opening)	MBCF 250 (700mm Door Opening)	MBCF 250 W (900mm Door Opening)
chilling capacity (kgs)	150	150	250	250
freezing capacity (kgs)*	150	150	250	250
maximum trolley dimensions	690 x 1040 x 1890	890 x 1040 x 1890	690 x 2040 x 1890	890 x 2040 x 1890
clear door opening (w x h)**	695 x 1898	895 x 1898	695 x 1898	895 x 1898
approx depth door open	2072	2272	3072	3272
extraction rate (watts @ -15°C)	11500	11500	21000	21000
electrical supply (fuse rating per phase)	230/1/50/20A	230/1/50/20A	400/3/50/16A	400/3/50/16A

* For blast freezing application, these models are designed for occasional freezing; capacities stated are nominal and will be dependent upon product, type and density, loading etc.

For freezing application, the optional 25mm floor must be specified. ** Inside door opening.

Depth without control panel reduce by 130mm

