

The Chill

Blast chillers for professional catering



LAINOX®

Excellence in the kitchen



the system



Well-organised work requires a range of specific equipment, specially designed and tested in the kitchen, the result of continuous refinement and countless tests.

This booklet deals with the blast chiller, an indispensable piece of equipment in any kitchen. Most cases of contamination occur in improperly chilled dishes, preserves and foods, which remain at a temperature within the danger range for several hours. Only the blast chiller can totally eliminate these risks.

Lainox's investment in research and development is constant in order to make its product increasingly versatile and capable of satisfying every customer's needs.

To attend a practical demonstration organised by Lainox means learning new methods and acquiring more knowledge on developing ways of working in the kitchen, reducing production costs while improving product quality.

From the system... the Cubosano



The *Cubosano* blast chiller is the kitchen appliance which **removes heat** and quickly lowers the core temperature of the products inside it.

Blast chilling or fast freezing food slows down the reproduction of micro-organisms and

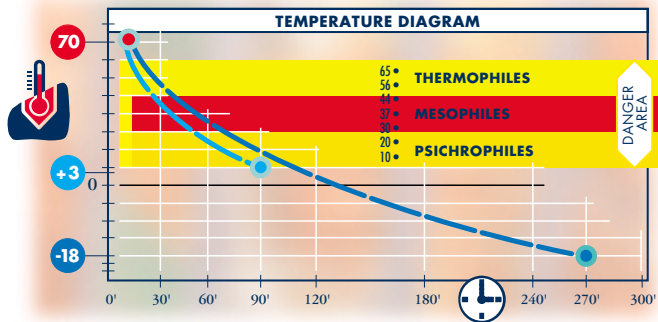
makes certain enzymes functionally inactive, resulting in increased stability of stored food.

Furthermore, preservation is perfect with regard to quality, work can be better organised and all in compliance with the HACCP system.

Cubosano

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Blast chilling and fast freezing...



The worst enemies in the kitchen? Micro-organisms and bacteria, which reproduce under favourable temperature conditions to be found between 10 and 60 °C (some also at 6/7 °C).

With blast chilling and fast freezing, the temperature drops through the danger band very quickly, thereby avoiding any unpleasant

consequences such as the risk of food poisoning, indigestion, the need to work on the product to make it presentable.



+70 → +3 °C Blast chilling



Cooked products are chilled fast: the product core temperature should drop to +3 °C in less than 90 minutes. It may then be stored for 5-7 days at +3 °C.



+70 → -18 °C Fast freezing



Cooked products are frozen fast: the product core temperature should drop to -18 °C in less than 270 minutes. It may then be stored for 6-12 months at -18 °C.

The power and speed of operation of the Lainox Cubosano ensure perfect freezing results: there is no formation of macro ice crystals, which are the main cause of deterioration in the structure and form of the product, whilst the right degree of relative humidity is maintained.

The result upon thawing is a product of absolute quality, consistency, flavour and colour.



HACCP control with LCS

All models are designed to be interfaced with a PC in order to allow remote programming, plus recording and filing of working data, all to HACCP regulations.



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... of cooked products

The intensive methods and exasperated processes of cultivation make foods more open to contamination; it is therefore necessary to work **quickly**, adopting time-efficient methods, to preserve the original qualities of food as best as possible.

Raw materials and cooked products should not remain out in the open at **temperatures of risk**; it therefore becomes difficult and very expensive to have the right amount of food always available

at the right time.

Today's quality will not be the same tomorrow and the same also applies to the price. Cooking may be deferred with an organised work system: preparation, cooking, chilling or fast freezing, storage (**food bank**), regeneration, thereby keeping production and service times (distribution and consumption) separate.

The blast chiller offers many benefits in staggered preparation:

- **T**he menu can be enlarged, as more dishes may be presented thanks to the food bank available.

- **D**ishes need not be produced in the hope that they will be sold.

- **T**he quality of work in the kitchen improves, there being no peaks or dead times and therefore less stress among staff.

- **T**he chef's professionalism is assuaged, having time to concentrate on the presentation of dishes.



days	Mo	Tu	We	Th	Fr	Sa	Su
Shopping							
Preparation cooking							
Chilling or freezing							
Preservation (food bank)							
Regeneration							
Garnishing service							

Guarantee of quality with staggered work organisation.



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Blast chilling and fast freezing...

A kitchen system planned around the blast chiller, with the possibility of passing extremely quickly from +25 to +3 or from +25 to -18 °C, opens up new opportunities also for properly preserving **raw products** (shellfish, fish, vegetables), **fresh-made products** (preparation of pasta, lasagne, ravioli, gnocchi),

semi-prepared products (fillings for ravioli and tortellini, sauces), **pastries** and **confectionery** preparations (flaky and short pastry sponge cake, flan bases, etc.).

Fast freezing limits alteration to the cellular structure of the food, prevents consequent loss of liquid and therefore enables it to be preserved with minimum damage.



A few examples:

- **T**he freshness and smell of the sea that is typical of freshly caught **Shellfish** is maintained thanks to immediate low temperature treatment.

- **I**f chilled, the **ravioli** filling is sure to keep its genuine flavour and softness.
- **F**ast freezing results in whole, fragrant

... of the uncooked product

fresh pasta, which does not break or dry out, remaining as if just made.

- The natural ripening process of fresh vegetables is stopped when chilled to $+3^{\circ}\text{C}$ so that their quality remains perfect for a longer period.

The considerable chilling power ensured by the compressor units enable the Lainox chillers to respond in the best way to all working requirements.

The benefits offered by fast freezing raw and semi-prepared products are many:

- Shorter preparation and working times per unit of product, all to the advantage of economies of scale.
- Possibility of storing large amounts of product.
- Better quality food with regard to taste, flavour, fragrance and freshness.



week	1	...5	...10	...20	...30	...40
Fresh-made products						
Seasonal shopping						
Fast freezing						
Storage (food bank)	-18 °C					
Cooking						
Garnishing and service						

Guarantee of quality for the storage of semi-prepared, pre-cooked or seasonal products.



Small-scale catering...

The choice of model with regard to dimensions, power, version, depends on the quantity of product to be stocked each day, the menu, the style of working - whether immediate or deferred, the number of meals served.

The blast chiller may be used several times a day,

even outside service hours, to create and organise an adequate, perfectly preserved food bank. The most suitable model for actual requirements is sure to be found in the **Lainox range**: : from small model that can be housed below the oven to the large cells for trolleys containing 20 GN 2/1 containers, from the positive blast chilling model i.e. chilling to +3 °C, to the “Combined” models, offering blast chilling and fast freezing.



061



051



Tipping body for easy maintenance (only on model 051)

Keypads and versions



Keypad S



Keypad T

VERSION S	S
Chilling	●
Freezing	●
HARD FUNCTION: Blast chilling setting (only positive on Version S)	●
Recorded time control and time setting	●
Core probe temperature control	●
Manual setting and temperature control of internal cell	●
Automatic defrosting	-
Manual defrosting	●
Heating of core probe spike	○
Steriliser on request	●
Sterilizer selection button	-
Cycles storage	●
Switch to holding mode led	-
Multi-probe System	-
Multi-point Probe	-

● Standard ○ Optional - Not provided

VERSION T	T
Chilling	●
Freezing	●
HARD FUNCTION: Blast chilling setting (only positive on Version S)	●
Recorded time control and time setting	●
Core probe temperature control	●
Manual setting and temperature control of internal cell	●
Automatic defrosting	●
Manual defrosting	●
Heating of core probe spike	●
Steriliser on request	●
Sterilizer selection button	●
Cycles storage	●
Switch to holding mode led	●
Multi-probe System	○
Multi-point Probe	○

● Standard ○ Optional - Not provided

...medium and large-scale catering



101

102

141

No. Trays - Distance between shelves mm	Models	Dimensions mm	Type	Core temperature °C	Voltage Volt	Total input Watt	Output per cycle* kg
 5 x GN 1/1	DBR 051 S	780x700x850h	CHILLER	+70 +3	AC 230 50Hz	1380	10.8
	DBM 051 S	780x700x850h	CHILLER/FREEZER	+70 +3 • +70 -18	AC 230 50Hz	1120	10.8 • 7.2
	ABR 051 S	780x700x850h	CHILLER	+70 +3	AC 230 50Hz	1650	18
	ABM 051 S	780x700x850h	CHILLER/FREEZER	+70 +3 • +70 -18	AC 230 50Hz	1500	18 • 10.8
	ABR 051 T	780x700x850h	CHILLER	+70 +3	AC 230 50Hz	1650	18
	ABM 051 T	780x700x850h	CHILLER/FREEZER	+70 +3 • +70 -18	AC 230 50Hz	1500	18 • 10.8
 6 x GN 1/1	ABR 061 S	780x700x1450h	CHILLER	+70 +3	AC 230 50Hz	2140	21.6
	ABM 061 S	780x700x1450h	CHILLER/FREEZER	+70 +3 • +70 -18	AC 230 50Hz	2080	21.6 • 14.4
	ABR 061 T	780x700x1450h	CHILLER	+70 +3	AC 230 50Hz	2140	21.6
	ABM 061 T	780x700x1450h	CHILLER/FREEZER	+70 +3 • +70 -18	AC 230 50Hz	2080	21.6 • 14.4
 10 x GN 1/1	ABR 101 S	790x875x1800h	CHILLER	+70 +3	3N AC 400 50Hz	3260	36
	ABM 101 S	790x875x1800h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	3590	36 • 25.2
	ABR 101 T	790x875x1800h	CHILLER	+70 +3	3N AC 400 50Hz	3260	36
	ABM 101 T	790x875x1800h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	3590	36 • 25.2
 14 x GN 1/1	ABR 141 S	790x875x1915h	CHILLER	+70 +3	3N AC 400 50Hz	4540	50.4
	ABM 141 S	790x875x1915h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	4710	50.4 • 32.4
	ABR 141 T	790x875x1915h	CHILLER	+70 +3	3N AC 400 50Hz	4540	50.4
	ABM 141 T	790x875x1915h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	4710	50.4 • 32.4
	DBR 141 S	790x875x1915h	CHILLER	+70 +3	3N AC 400 50Hz	3380	25.2
	DBM 141 S	790x875x1915h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	3710	25.2 • 16.2
	DBR 141 T	790x875x1915h	CHILLER	+70 +3	3N AC 400 50Hz	3380	25.2
	DBM 141 T	790x875x1915h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	3710	25.2 • 16.2
 20 x GN 1/1	ABR 102 S	1100x895x1800h	CHILLER	+70 +3	3N AC 400 50Hz	5890	72
	ABM 102 S	1100x895x1800h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	5320	72 • 50.4
	ABR 102 T	1100x895x1800h	CHILLER	+70 +3	3N AC 400 50Hz	5890	72
	ABM 102 T	1100x895x1800h	CHILLER/FREEZER	+70 +3 • +70 -18	3N AC 400 50Hz	5320	72 • 50.4

* The efficiency per cycle in kilos is approximate and depends on food thickness.

Refer to user's manual for best use.

Cubosano

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A range of cells



C20 T

C40 T



All cell models have sturdy internal stainless steel guiding rails to facilitate the insertion of rolling racks and other structures and avoid damage to the interior during insertion

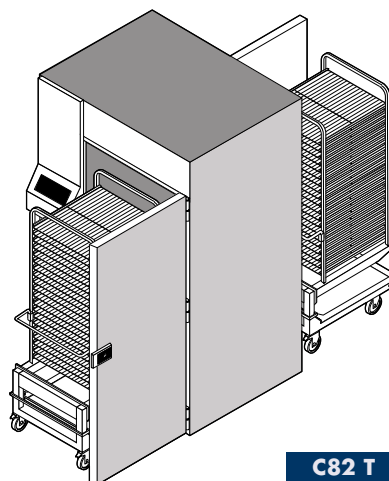
Trolley with (x) trays	Models	Dimensions mm	Cell internal dim. mm	Type	Core temperature °C	Voltage Volt	Total input Watt	Output per cycle* · kg
1x20 GN 1/1	ABR C20 T	940x1045x2190h	710x570x1860h	CHILLER	+70 +3	3N AC 400 50Hz	7990	90
	ABM C20 T	940x1045x2190h	710x570x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	5540	90 • 61.2
1x20 GN 2/1 1x40 GN 1/1	ABR C40 T	1400x1200x2210h	830x972x1860h	CHILLER	+70 +3	3N AC 400 50Hz	14500	180
	ABM C40 T	1400x1200x2210h	830x972x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	14290	180 • 115.2
	DBR C40 T	1400x1200x2210h	830x972x1860h	CHILLER	+70 +3	3N AC 400 50Hz	7990	90
	DBM C40 T	1400x1200x2210h	830x972x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	5540	90 • 61.2
1x20 GN 2/1 1x40 GN 1/1	ABR C42 T	1400x1340x2210h	830x1065x1860h	CHILLER	+70 +3	3N AC 400 50Hz	14500	180
	ABM C42 T	1400x1340x2210h	830x1065x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	14290	180 • 115.2
	DBR C42 T	1400x1340x2210h	830x1065x1860h	CHILLER	+70 +3	3N AC 400 50Hz	7990	90
	DBM C42 T	1400x1340x2210h	830x1065x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	5540	90 • 61.2
2x20 GN 2/1 2x40 GN 1/1	ABR C82 T	1400x2275x2210h	830x2000x1860h	CHILLER	+70 +3	3N AC 400 50Hz	29000	360
	ABM C82 T	1400x2275x2210h	830x2000x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	28500	360 • 230
	DBR C82 T	1400x2275x2210h	830x2000x1860h	CHILLER	+70 +3	3N AC 400 50Hz	14500	180
	DBM C82 T	1400x2275x2210h	830x2000x1860h	CHILL./FREE.	+70 +3 • +70 -18	3N AC 400 50Hz	14290	180 • 115.2

* The efficiency per cycle in kilos is approximate and depends on food thickness.

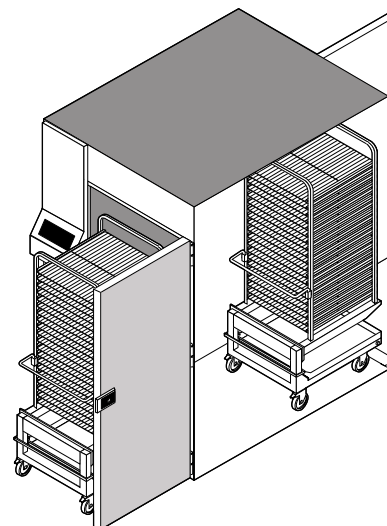
Refer to user's manual for best use.

C42: models with through doors. For those who need to operate in adjacent environments.

C82: models with through doors for 2 trolleys 20 x 2/1 GN or 40 x 1/1 GN



C42 T



C82 T

General technical characteristics of Lainox blast chillers

Manufactured entirely in AISI 304 - 18/10 stainless steel, chambers and cells with radial outer and inner corners, stainless steel interior accessories (drain outlets, deflectors, side racks), protective fan grilles in polished stainless steel, very thick CFC-free foam.

Manual or automatic defrosting. CFC-free refrigerant (R404A).

Air-cooled and water units

High power, highly reliable, whisper-quiet water and air-cooled units designed to provide steady, lasting performance. They may be fitted with housing for outdoors (on request).



Ergonomic



Handle-free doors, with magnetic seal and self-closing hinge, with door-pull along the whole height of the actual door. This facilitates reversing door opening whilst guaranteeing the facility of the grip and more thorough cleaning.

Heated core probe

Designed to measure the product core temperature with the utmost precision. It has a timed heating device, which allows perfect extraction after freezing (standard on T versions, available on request for S versions). The **Multiprobe System** is available upon request: this enables installation of up to 4 core probes.



Hard chilling



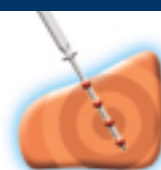
All models are equipped with a **HARD** button which enables rapid chilling in the most demanding situations, i.e. for large quantities of food or very large items, or when there is a substantial difference between the actual product core temperature and the temperature to be reached.

Sterilox

Compact, simple and economic, the universal removable steriliser has a wide range of action and keeps equipment and appliances germ-free and odourless. Available on request for versions S and T.



Multi-point probe



Probe with multiple temperature measurement points for greater certainty of core temperature (available on request for version T).



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