BLAST CHILLERS

BLAST FREEZERS
Blast chillers have become an essential feature of the modern professional kitchen. By reducing the temperature of food quickly, they offer those responsible for organizing work in the kitchen indispensable advantages in terms of hygiene, product flavour and appearance, menu size and the planning and rationalization of operations.

**Hygiene**

Rapid temperature reduction prevents the reproduction of microorganisms, so the food then stored in the refrigerator contain them in only negligible quantities. Shelf life in the refrigerator depends on the packaging; foods stored without packaging must be consumed within five days, since bacteria are able to reproduce even in a cold environment, while vacuum packed products, since they are not in contact with the air, can be kept for up to three weeks.

Obviously, advance preparation of a large number of dishes allows the kitchen to provide a richer, more varied menu at meal serving times. The chef no longer has to oversee the entire process for production of the various dishes simultaneously.

A lot of time can be saved by combining ready-made, precooked ingredients from the refrigerator. The same applies to the preparation of banquets, particularly by the specialist caterer.

**Planning**

The advantages of the blast chiller are clear, particularly in the organization of work in the kitchen. No longer a slave to unpredictable flow of orders from the restaurant, the chef can now work to his own schedule in preparing dishes, making a number of portions that optimizes the equipment’s production capacity, eliminating waste and reducing overheads, with significant economic savings.

The formation of macrocrystals of ice which break the intercellular membrane, so foods lose liquids and vitamins.

**Other advantages**

The applications of this method of planning and rationalizing work in the kitchen offers particular advantages for fast food outlets, company of hospital canteens, or delicatessens and take-aways can offer customers attractively presented ready-to-eat dishes which may have taken considerable time just to garnish.
**Soft chilling**

Suitable for joints having less than 20 mm thickness or delicate foods. During this cycle the chamber air temperature is not going below 0°C and remains at this level until the temperature at the core reaches +3°C. In case the product does not allow the use of the core probe, then the chilling cycle must use the time mode (max 90'). At the end of the cycle, the program starts the storage phase and the appliance will run as a normal refrigerator.

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**Hard chilling**

Suitable for joints having more than 20 mm thickness or for dense products. In the first phase of the cycle, the refrigerant group runs at 100%. As soon as the chamber air-temperature reaches -15/-25°C it remains at this level until the temperature at the core reaches about +10°C, just to avoid problems of food surface freezing. In the second phase of the cycle, the chamber air-temperature is increased up to about +0°C until the core temperature reaches +3°C. At the end of the cycle the program starts the storage phase and the appliance will run as a normal refrigerator.

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**Blast chillers**

Blast chillers are able to reduce the temperature of a food product from +70°C to +3°C at core within 90' and to store the product at +0°C/+5°C according to the storage cycle.
BLAST FREEZERS

Blast freezers are able to reduce the temperature of a food product from +70°C to -18°C at core within 240’ and to store the product at -18/-25°C according to the cycle previously chosen.

**Soft freezing**

Suitable for joints having less than 20 mm thickness or delicate foods. During the first phase of the cycle, the chamber air temperature is not going below 0°C until the temperature at the core of products has not reaches +20°C. In a second phase, the chamber air temperature is dropped down to -40°C and maintains this level until the core temperature reaches -18°C. In case the product do not allow the use of the core probe, then the freezing cycle must use the time mode (max 240’). At the end of the cycle the program starts the storage phase and the appliance will run as a normal refrigerator.

**Hard freezing**

Suitable for joints having more than 20 mm thickness or for dense products. During this cycle, the refrigerant group runs at 100%. As soon as the chamber air temperature reaches -440°C it remains at this level until the temperature at the core reaches about -18°C. Then, the program starts the storage phase and the appliance will run as a normal refrigerator.
maximum performances

All appliances have been designed to grant high-performances and to make good use of the spaces by taking in mind the maintenance.

maximum temperature uniformity

The exclusive design of the chamber enables the air flow to reach quickly the required temperature in all points. The chillers having a capacity of 20 GN 1/1 and 20 GN 2/1 are provided with very large inner rounded corners.

maximum functionality

The components of the cooling unit are of high quality and performances particularly suitable for heavy-duty operation. The refrigerant is R404A.

maximum hygiene and cleynability

Fully in compliance with the CEE 93/43 guidelines (H.A.C.C.P.). Bottom of chamber fully and easily cleanable. The snap-in type shelf-supports can be removed without the aid of tools. Inside in stainless steel AISI 304 18/10 with fully rounded edges.

maximum ease of maintenence

Maximum access to the cooling unit and electrical components.
THESE ARE THE ADVANTAGES

maximum energy saving

The insulation is provided by means of CFC-free high density expanded polyurethane. The 20 GN 2/1 chillers are provided with panels having 100 mm thickness. Automatic switching to the storage phase after the chilling/freezing temperature has been reached. On request, the 20 GN 1/1 and the 20 GN 2/1 chillers can be supplied with a 2nd, low-power compressor, for storage purposes only.

maximum versatility

The personalized control panel, easy to use, enables to set the chilling/freezing cycles for the most demanding caterer.

maximum reliability

Maximum reliability thanks to the high quality of the materials and components used. The sophisticated technologies of the production process and the tests carried out on every unit permit a huge reduction in failure rates during use.

maximum security

All appliances are designed in compliance with the in force guidelines, duly tested (functionally and electrically) before to be CE-marked.

maximum choice

The wide choice of models is completed with roll-in and roll-thru chillers, both in the electronic and electromechanical versions.
THE FUNCTIONS

Wide choice of cycles, already set-up or alterable. The control board enables 3 chilling and 3 freezing programs; for each block, two of them are factory set up instead the third one is set up by the user. The elapsed time can be displayed during the chilling/freezing cycle end also at the end of it; the caterer can take good advantage of these data.

An acoustic and visual signal advises the good issue of the cycle or also in case the cycle is out of time (even for a lack of power supply). Automatic recognition of core probe or time functioning whatever be the temperature situation.

Appliance in Stop-State: the key calls the already set chilling cycles. Appliance in On-State: the key displays the selected cycle.

Appliance in Stop-State: the key calls the already set freezing cycles. Appliance in On-State: the key displays the selected cycle.

The key enables the cycle in the time mode and displays its value from the beginning of the cycle in the START phase.

The key displays the temperature of the chamber and of the coreprobe.

Appliance in Stop-State: the key enables the UVC sterilization cycle.

All models can be equipped with water condensation units equipped with very efficient and low consumption exchangers.

Set of castors.
The electronic control panel or Master board, designed to be user-friendly, achieves outstanding features:
- temperature read-out (3 green numbers)
- alpha-num. display (4 lines x 20 char. each) with LED back-lighting.

Additional features (standard or optional):
- built-in printer (optional);
- control module with 3/4 core probes for different types and sizes of food (optional);
- self-diagnosis for eventual failure detection;
- program-controlled air-flow by means of a speed regulator connected to the evaporator’s fans;
- storage of more than 30 chilling/freezing cycles each one with 4 steps and control of:
  - chamber temperature
  - core temperature
  - time
  - fans speed (if equipped with regulator);
- UVC lamp for the sterilization of the chamber and of the kitchen tools (optional);
- possibility to control the condensation temperature by changing the fans’ speed and enabling the remote condensing unit to properly run also by external low temperature;
- international voltages.

The key sets the killing cycle
The key sets the heating cycle
The key sets the sterilization cycle.

Remote assistance (optional)

Fully in compliance with the Cee 93/43 guidelines (H.A.C.C.P.)
Connection to a local P.C. with Windows application (optional).

ENERGY SAVING (optional)
2nd, low-power compressor
Automatic switching to the storage phase.
10HP → 1HP

The key enables to change the values or the data appearing on the LED alpha-num. display.

The key sets the “HARD” function enabling the appliance to run at full power.

Connection to a local P.C. with Windows application (optional).
### TECHNICAL DATA

#### Electronic series

<table>
<thead>
<tr>
<th>Model</th>
<th>Dim. LxPxH (mm)</th>
<th>Capacity (kg)</th>
<th>Shelves GN 1/1 (n)</th>
<th>Power supply (V/Hz)</th>
<th>Power abs. (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC041</td>
<td>966 x 700 x 850</td>
<td>15</td>
<td>10</td>
<td>230/1/50</td>
<td>1220, 1390</td>
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<td>BF041</td>
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#### Electronic series with master board

<table>
<thead>
<tr>
<th>Model</th>
<th>Dim. LxPxH (mm)</th>
<th>Capacity (kg)</th>
<th>Shelves GN 1/1 (n)</th>
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<th>Power abs. (W)</th>
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<tbody>
<tr>
<td>BC051</td>
<td>755 x 800 x 1035</td>
<td>18</td>
<td>12</td>
<td>230/1/50</td>
<td>1250, 1440</td>
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<td>BF051</td>
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#### congelador rápido

<table>
<thead>
<tr>
<th>Model</th>
<th>Dim. LxPxH (mm)</th>
<th>Capacity (kg)</th>
<th>Shelves GN 1/1 (n)</th>
<th>Power supply (V/Hz)</th>
<th>Power abs. (W)</th>
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<tbody>
<tr>
<td>BC101</td>
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<td>30</td>
<td>21</td>
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<td>1550, 1910</td>
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<td>BF101</td>
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<th>Power abs. (W)</th>
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<tbody>
<tr>
<td>BC201</td>
<td>1020 x 990 x 2210</td>
<td>70</td>
<td>48</td>
<td>400/3/50</td>
<td>4100, 4700</td>
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<td>BF201</td>
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<th>Shelves GN 1/1 (n)</th>
<th>Power supply (V/Hz)</th>
<th>Power abs. (W)</th>
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<tbody>
<tr>
<td>BC202</td>
<td>1550 x 1270 x 2350</td>
<td>150</td>
<td>100</td>
<td>400/3/50</td>
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<th>Capacity (kg)</th>
<th>Shelves GN 1/1 (n)</th>
<th>Power supply (V/Hz)</th>
<th>Power abs. (W)</th>
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<th>Dim. LxPxH (mm)</th>
<th>Capacity (kg)</th>
<th>Shelves GN 1/1 (n)</th>
<th>Power supply (V/Hz)</th>
<th>Power abs. (W)</th>
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<tbody>
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<td>BF151</td>
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<td>Model</td>
<td>Dim. LxPxH</td>
<td>Capacity</td>
<td>Shelves GN 1/1</td>
<td>Power supply</td>
<td>Power abs.</td>
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<tr>
<td>BC041</td>
<td>mm 850 x 820 x 1550</td>
<td>kg 22</td>
<td>6</td>
<td>V/Hz 230/1/50</td>
<td>W 1550</td>
</tr>
<tr>
<td>BC041</td>
<td>mm 1210 x 950 x 1810</td>
<td>kg 70</td>
<td>20</td>
<td>V/Hz 400/3/50</td>
<td>W 4100</td>
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<tr>
<td>BC041</td>
<td>mm 1020 x 890 x 2240</td>
<td>kg 70</td>
<td>20</td>
<td>V/Hz 400/3/50</td>
<td>W 4100</td>
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<tr>
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<td>mm 1550 x 1270 x 2240</td>
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<td>V/Hz 400/3/50</td>
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<td>kg 75</td>
<td>40</td>
<td>V/Hz 400/3/50</td>
<td>W 4100</td>
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POSSIBLE INTERIOR EQUIPMENT

with inclined ramp “CR”

without floor “S/P”

without ramp “S/R”

with adjustable legs “Rational”

kitchen equipment GmbH
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