

 INNOVATIVE DNA

 **BIOTECNO**[®]
Smart Scientific Refrigerators

SCIENCE AND EVOLUTION

IN SMART COLD CHAIN SOLUTIONS

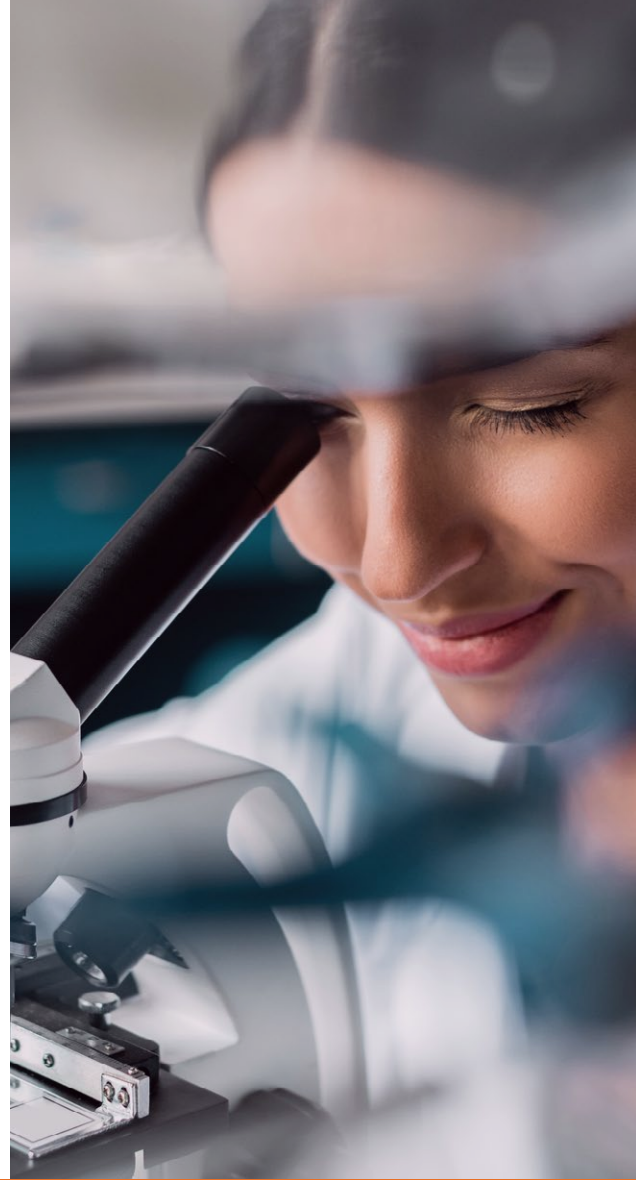
 **BIOTECNO**[®] Conserving Life

EQUIPMENT AND
TECHNOLOGIES
CATALOG

THE MOST AWARDED MEDICAL AND SCIENTIFIC SMART REFRIGERATION BRAND IN BRAZIL.

We develop smart scientific refrigerators and freezers for the safe storage of immunobiologicals, blood and its components, drugs and oncology.

A 100% Brazilian industry, we are the brand that developed the Emergency System, which keeps the equipment working for up to 72 hours in cases of power grid failure - innovation that revolutionized vaccine conservation.



VACCINES
LINE



BLOOD
LINE



LABORATORY
LINE



FREEZER
LINE



ULTRAFREEZER
LINE



SPECIAL
PROJECTS

OUR EQUIPMENT

BT 1100/20 DAILY USE

15 liters

2°C to 8°C

540W X 470D X 480H (mm)

Product weight 38 Kg

110/240V automatic

External and internal stainless steel

Eliminates the need for ice pack



For a complete product description, see the technical data sheet.

SMART SCIENTIFIC REFRIGERATORS

INNOVATION WITH THE ORIGINAL BIOTECNO DNA

Smart refrigerators certified by the U.S. Food & Drug Administration - FDA, registered by the Brazilian Ministry of Health and produced according to ANVISA Good Manufacturing Practices. Biotecno smart refrigerator stored the first CoronaVac vaccine applied in Brazil. Safety and reliability for your business, stored material and health segment.



**U.S. FOOD & DRUG
ADMINISTRATION**

REGISTRATION NUMBER: 3017882410

SMART THERMAL BOX BT 1100/20

15 liters

2°C to 8°C (or 2°C to 6°C blood)

57H X 45W X 38D (cm) external

14H X 33W X 18D (cm) internal

Product weight 17 Kg

Automatic 100-240V | Vehicle 12VCC

Emergency System for 2 hours



For a complete product description, see the technical data sheet.

SMART THERMAL BOX BT 1100/50

30 liters

2°C to 8°C (or 2°C to 6°C blood)

56H X 63W X 37D (cm) external

33H X 27,5W X 30P + 13H X 27,5L+12,5D (cm) internal

Product weight 24 Kg

Automatic 100-240V | Vehicle 12VCC

Emergency System for 2 hours



BT 1100/80 SOLAR

50 liters

2°C to 8°C (or 2°C to 6°C blood)

114H X 69W X 50D (cm) external

46H X 44W X 29D (cm) internal

Blind horizontal door

2 stainless steel baskets

Optional, Emergency System for 48 hours



BT 1100/80

50 liters

2°C to 8°C (or 2°C to 6°C blood)

72H X 50W X 54D (cm) external

43H X 42W X 52D (cm) internal

2 shelves

Double glass door

Optional, Emergency System for 12 hours





BT 1100/140

140 liters

2°C to 8°C (or 2°C to 6°C blood)

144H X 60W X 57D (cm) external

78H X 46W X 44D (cm) internal

2 a 3 shelves or drawers

Triple glass door

Optional, Emergency System for 24 ou 48 hours



BT 1100/280

280 liters

2°C to 8°C (or 2°C to 6°C blood)

201H X 69W X 64D (cm) external

107H X 53W X 51D (cm) internal

4 to 5 shelves or drawers

Triple glass door

Optional, Emergency System for 36 or 48 hours



BT 1100/340

340 liters

2°C to 8°C (or 2°C to 6°C blood)

201H X 68W X 73D (cm) external

108H X 52W X 60D (cm) internal

4 a 5 shelves or drawers

Triple glass door

Optional, Emergency System for 36, 48 or 72 hours



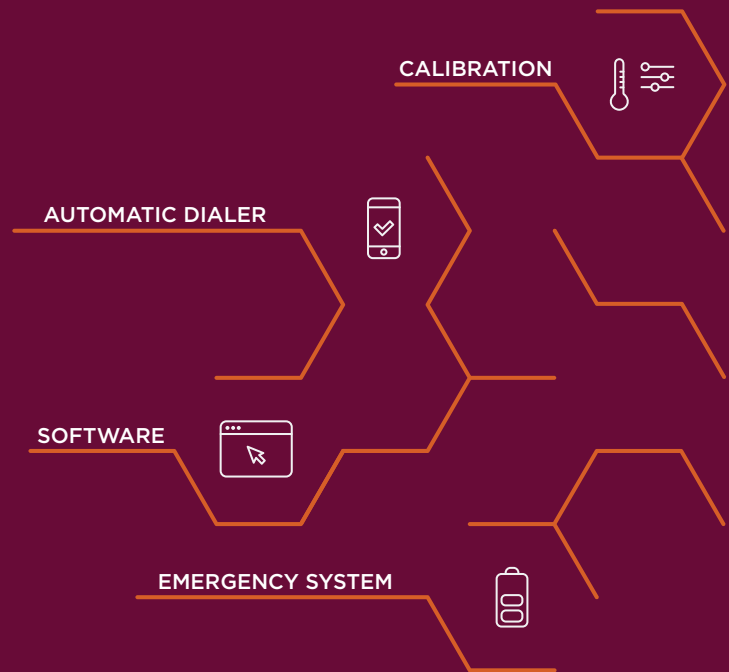
MORE TECHNOLOGY AND INNOVATION

Biotechno is the evolution applied to scientific refrigeration. We invest in research and development to create high tech cold chain solutions.

Connected to the Internet of Things trend - IoT, the equipment can be managed remotely, in addition to providing performance reports and graphs. Now, discover the technologies and accessories that can be applied to any Biotechno model.

TOTAL REDUNDANCE SECURITY SYSTEM

Temperature control system installed in parallel with self-sensing master control, with its own sensor, which automatically assumes the temperature control of the chamber if there is any failure in the main control system or even a temperature deviation (above 7.5°C or below 2.5°C) occurred for any reason, acting truly like a "guardian angel". This system has also an exclusive software for extracting performance reports with encrypted data that guarantees total impartiality in data acquisition..



EXTERNAL CABINET

Vertical or horizontal type made of stainless steel, high-strength ABS or steel sheets chemically treated with epoxy paint. Assembled on metallic chassis and lockable swivel castors.

INTERNAL CABINET

Built in stainless steel, high strength ABS, polypropylene or galvanized steel sheets with epoxy coating. Equipped with shelves, baskets, drawers with telescopic slides and transparent acrylic countertops.

INTERNAL LIGHTING

LED, with automatic activation when opening the door and/or programmable timer with external activation even with the door closed.

TEMPERATURE HOMOGENIZER

Through linear or axial fans with automatic shutdown when opening the door. The forced-air circulation ensures perfect homogenization of the temperature at all points inside the equipment.

THERMAL INSULATION

In high density injected polyurethane, CFC free, thicknesses from 30 to 100 mm.

DOORS

Vertical or horizontal type, totally blind in stainless steel or galvanized steel with epoxy coating optionally with triple

glass display, completely double or triple glass with anti-fog system (no fog) with aluminum or PVC profile, with sealing through magnetic profile, anatomical handles, locking system with keys or electronic and biometric password, equipped with a timed opening alarm.

REFRIGERATION

Through a hermetic compressor with circulation of ecological gases R-134A and R-404A, both CFC free, forced air type evaporator unit, automatic defrost system with condensate evaporation.

CONTROL PANEL

Assembled on the front top, it can be membrane type with soft touch keys or touch screen. Microprocessed electronic controller with LCD/BIG display. USB/FLASH DRIVE input for extracting performance reports. Illumination button. Key to access the programming MENU. Key to silence alarms. Locking system for programming against inadvertent handling by password directly on the panel. System that reestablishes the programmed parameters even with sudden energy variation or shutdown of the equipment. Filter against electromagnetic noise. Automatic programming check system. Equipped with up to 8 NTC sensors or PT-100 type (with expansion possibility) immersed in diathermic solution and in the air, equipped with electronic filters. Sealed battery to keep the display with electronic functions, allowing activation of alarms and a telephone dialer in case of a power grid failure.



VISUAL SIGNS

Simultaneous display of the current temperatures, minimum and maximum temperatures reached, open door indication, lack of commercial electrical power, sensor failure, low battery, missing pendrive, maintenance alert.

AUDIOVISUAL ALARMS

Temperature below 2°C, temperature above 8°C (or 6°C for storage of blood and its components), or adjustable by user. Alarms for electric power cut, open door, inhibit key to silence the buzzer for 15 minutes, or adjustable by user. Equipped with alarm simulator.

WORKING RANGE

Minimum of 2°C and maximum of 8°C for vaccines, 2°C to 6°C for blood and its components or adjustable by the user, with a variation of + -0.1°C. -10°C to -36°C freezing and -50°C to 86°C ultra freezing.

SECURITY SYSTEM

Thermostat installed in parallel with the equipment electronic controller, automatically taking control of compressor functions whenever the electronic control fails.

DIALER

Automatic system that sends temperature alerts outside the programmed range or lack of electricity to up to nine pre-programmed numbers using a direct line, telephone exchange extension or cellular dialer.

MANAGEMENT SOFTWARE

Emits performance reports and graphics, including retroactive, allowing the camera management via the internet with RS 232/485/DB-25 serial output and interface for product control and monitoring.

EMERGENCY SYSTEM (OPTIONAL)

Backup of energy produced by sealed or stationary type batteries that can keep the chamber in full operation, including cold compressor, through voltage inverters with autonomy that can vary from 2 to 72 hours (or more with increase of batteries).

VOLTAGE CONTROLLER (OPTIONAL)

Monitors and activates the Emergency System due to power failure or instability of electricity. Emits electric voltage performance data via data-logger.

OPERATION

Bivolt 127/220 volts 50/60 Hz.

OPTIONAL ITEMS

USB flash drive, calibration, cell dialer, key kit on the door, cryogenic blocks, custom stickers, solar kit, emergency system, voltage controller, thermal rating, touch screen.

FDA REGISTRATION NUMBER: 3017882410

ANVISA REGISTRATION: 80573310001

AFE ANVISA: K0146H6L074L

WARRANTY: ONE YEAR



BT 1100/420

420 liters

2°C to 8°C (or 2°C to 6°C blood)

198H X 75W X 70D (cm) external

132H X 60W X 56D (cm) internal

4 a 7 shelves or drawers

Triple glass door

Optional, Emergency System for 30 hours



BT 1100/560

560 liters

2°C to 8°C (or 2°C to 6°C blood)

198H X 75W X 87D (cm) external

130H X 60W X 73D (cm) internal

4 a 7 shelves or drawers

Triple glass door

Optional, Emergency System for 24 hours



MODULAR*

BT 1100/1000

1000 liters

2°C to 8°C (or 2°C do 6°C blood)

202H X 136W X 70D (cm) external

135H X 121W X 61D (cm) internal

10 a 12 shelves or drawers

2 triple glass doors

Optional, Emergency System for 12 or 24 hours



*Modular equipment can be assembled at place of use, when access is difficult.
For a complete product description, see the technical data sheet.

BT 1100/1500

1500 liters

2°C to 8°C (or 2°C to 6°C blood)

202H X 197W X 70D (cm) external

135H X 182W X 63D (cm) internal

12 shelves or drawers

3 triple glass doors

Optional, Emergency System for 12 or 24 hours



MODULAR*



FREEZER

BT 1200/300 BT 1200/560

300/560 liters

-10°C to -35°C

Management software

Triple glass door

Automatic defrost

Internal finish in stainless steel or galvanized

*Modular equipment can be assembled at place of use, when access is difficult.
For a complete product description, see the technical data sheet.



BT 1300/335
BT 1300/520

335/520 liters

-50°C to -86°C

Blind metal door

Individual internals counterstocks

200 volts 50/60 Hz

Internal finish in stainless steel

Management software

For a complete product description, see the technical data sheet.

SPECIAL PROJECTS WE DEVELOP THE PERFECT EQUIPMENT FOR YOU

Biotecno develops special projects, adapted to your specific need. Customized, modular equipment that adapts to any needs. Contact us and our Engineering Department will develop the right solution to suit your needs.



DIFFERENTIALS THAT STRENGTHEN THE SMART REFRIGERATION CONCEPT



EMERGENCY SYSTEM - Awarded for its innovative character, Biotecno emerged in the market after creating a solution to the problem of power shortages. The Emergency System keeps the equipment working in the event of a power failure for up to 72 hours, depending on the model.



HOMOGENEIZATION - The forced air cooling system guarantees perfect temperature homogenization in the chamber's internal environment.



STAINLESS STEEL - The use of noble materials in manufacturing, such as stainless steel, provides perfect asepsis and sophisticated finishing.



SOFTWARE - The technology embedded in the refrigerator allows the user to have remote access through software, with no monthly fee.



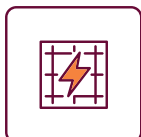
REMOTE MANAGEMENT - Allows the issuance of graphs and reports with real-time monitoring.



VOLTAGE CONTROLLER - To protect the equipment when there is power instability with activation of the Emergency System. It emits performance data via software.



AUTOMATIC DIALER - To increase security, the smart refrigerators are equipped with telephone dialers activated in critical temperature situations.



ELECTRIC POWER SUPPLY KIT THROUGH SOLAR PANEL - All models can optionally work with the power supply by photovoltaic plates.

THE LARGEST TECHNICAL SUPPORT NETWORK OF THE SEGMENT IN BRAZIL

We have more than 50 authorized technical service providers. Find one at www.biotecno.com.br



FREE TECHNICAL SUPPORT
BY REMOTE ACCESS FOR THE EQUIPMENT LIFETIME,
EVEN OUT OF THE WARRANTY PERIOD.



WWW.BIOTECNO.COM.BR

  BIOTECNO REFRIGERAÇÃO MÉDICA



Conserving Life

THE MOST AWARDED MEDICAL AND SCIENTIFIC REFRIGERATION BRAND IN BRAZIL



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