



*Angelantoni*  
INDUSTRIE

MORE THAN TECHNOLOGY

Life Science Business Unit  
AS - Biomedical Equipment Division

Prefabricated blood bank refrigerators and freezers /PE Series





Notified Body No.:  
0434

- PRO** → Professional Line.
- +4** **-30** → Working temperature: +4°C /-30°C.
- 93/42/EEC** → Equipment certified according to 93/42/EEC directive and following amendments.

## Technical features



01

## Reach-in refrigerators and freezers (from 3000 to 6000 l)

**Structure** /Zinc plated steel plate main frame made of white pre-painted prefabricated panels to ensure durability. Internal chamber in abrasion proof special white plastic.

**Door** /Up to 6 service doors with handles, locks and specific rubber gaskets.

Electrical heater system on the door frame to prevent condensation. External key lock.

**Internal Lamp** /Internal light complete with manual and automatic ON/OFF door switch.

**Insulation** /Injected CFC-Free foamed polyurethane. TN model: Thickness: 60 mm.

LT model: Thickness: 120 mm

**Cooling system** /

- Sealed semihermetic compressors in the upper part of the chamber.
- Air-condenser.
- Finned copper pipe battery

**Inner air treatment** /By a forced ventilation evaporator, hang on the inner ceiling. It is equipped with finned copper pipe battery, aluminum bodywork and bowl for condensation water.

Electric defrosting resistance included in the evaporator pack, allowing a faster defrosting process. PT 100 probe (protection: IP68) controls the evaporator's inner temperature and consequently manages the defrosting process and the ventilators start.

**Temperature chart recorder** /Battery operated, weekly diagrams, key lock, adjustable pen. Temperature range: from +30°C to -30°C.

**Regulation and control system** /Microprocessor controller E2003, with two independent sections, the first one to set and control temperature, the second one to manage the alarm system and display temperature. Rechargeable buffer battery (12V, 2Ah) to keep the alarm system running for 48 hours in case of power outage. Configured for a remote replication of alarms.

02 03

01. Microprocessor controller E2003.
02. PE 2619 LT-MD model.
03. Floor electric control panel.



## Walk-in chambers (from 10000 to 21000 l)

**Floor** /Prefabricated modular stainless steel coated with anti-glaciation grids.

**Panel system** /Prefabricated chamber made of modular self-holding weldingless panels in order to allow a total disassembly with the following characteristics:

- Perimetrical panels gauge (ceiling and floor): 80 mm (TN models)120 mm(LTmodels).
- Rounded inner corners.
- Zinc plate internal/external coating with nontoxic external plasticization.
- Internal insulation with polyurethane sandwich technique ( density: 40-42 kg/mc ±2)
- Nontoxic laminated surface.
- No. 1 service door with high resistant rubber gaskets, external key lock, anti-panic door handle.  
The door is in the front wall (1000 x 1900 H).

**Ceiling** /Modular ceiling composed of prefabricated modular panels with the same features as the previous walls.

**Thermoregulation system** /The temperature control of each chamber is realized by a forced ventilation evaporator equipped with finned copper pipe battery, aluminum bodywork, defrosting electric heater. Evaporator is hung on the ceiling of each chamber. Condensation water is collected in the evaporator basin through an insulated copper pipe.

**Cooling system** /By refrigeration group composed by:

- Modern semi-hermetic compressor, following high quality standards.
- Air-condenser.
- Dehydrated filter for coolant dehydration.
- Taps, fittings and joint linkage and exclusion between the refrigeration system units.
- Copper and steel piping for the connection of the various components of the cooling plant fed by refrigerant gas and anti-freezing oil, in quantity necessary for the perfect plant operation.

**Regulation and control system** /Microprocessor controller E2003, with two independent sections, the first one to set and control temperature, the second one to manage the alarm system and display temperature.

**Electric system** /The electric system meets the CEI-IEC rules. The flameproof, multipolar, weight-adapted cables are situated in ducts departing from our main control panel to the users.

**Electric control panel** /Floor electric control panel, near the walk-in chamber.

- Painted steel plate carpentry.
- Main magnetothermic switch with interlock device, in keeping with the rules.
- Warning light for proper working and for anomalies.
- Control panel with temperature digital display.

**Lighting** /Fluorescent lights with automatic switch by door opening and ON/OFF on main panel.

**Temperature chart recorder** /Battery operated, weekly diagrams, key lock, adjustable pen.

Temperature range: from 0 °C to -60 °C.

**Optional** /Cryolog software, back-up cooling and electrical system.

## Technical specifications

Model	PE 2003 TN - MD	PE 2004 TN - MD	PE 2005 TN - MD	PE 2006 TN - MD	PE 2610 TN - MD	PE 2615 TN - MD	PE 2621 TN - MD
	PE 2103 LT - MD	PE 2104 LT - MD	PE 2105 LT - MD	PE 2106 LT - MD	PE 2610 LT - MD	PE 2615 LT - MD	PE 2619 LT - MD
Nominal capacity (l)	3000	4000	5000	6000	10000	15000	21000 - 19000
Temperature range (°C)	0°C +10°C (TN models) / -10°C -30°C (LT models)						
Supply voltage (V)	400 V +6% -10% / 3 (Three phase) / 50 Hz + Neutral + Ground						
Cooling system	Semi hermetic compressor						
Noise (db)	< 65						
Weight (Kg)	200 - 280	245 - 350	300 - 420	355 - 490	410 - 540	520 - 750	640 - 850
External dimensions (mm)	2520×870×2000	3320×870×2000	4120×870×2000	4920×870×2000	2060×2400×2560	3140×2400×2680	2960×2400×2560
	2640×990×2150	3440×990×2150	4240×990×2150	5040×990×2150	2140×2400×2680	3140×2400×2680	3140×3040×2680
Doors (N°)	3	4	5	6		1	

→ Illustration, description and technical data may be changed without notice.

→ Customizable prefabricate refrigerators and freezer are also available without compliance with 93/42/EEC directives.

Life Science Business Unit \_

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