



MORE THAN TECHNOLOGY

## Life Science Business Unit AS - Biomedical Equipment Division

Prefabricated cold, thermostatic and climatic chamber/PE Series



MODELLI MODELS	CAMPO TEMPERATURA TEMPERATURE RANGE	CAMPO UMIDITA' HUMIDITY RANGE	CAMPO LUMINOSO LIGHT INTENSITY
PE ..... TN	0°C / +10°C	●	●
PE ..... BT	-10 °C / -30°C	●	●
PE ..... TN-EKOM	0°C / +10°C	●	●
PE ..... BT-EKOM	-10 °C / -30°C	●	●
PE ..... TS	+10 °C / +50°C	●	●
PE ..... UY	+10 °C / +50°C	20% / 90%	●
PE ..... TS-LX	+10 °C / +50°C	●	0 / 20.000 Lux.
PE ..... UY-LX	+10 °C / +50°C	20% / 90%	0 / 20.000 Lux.





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**Quick and easy assembly**

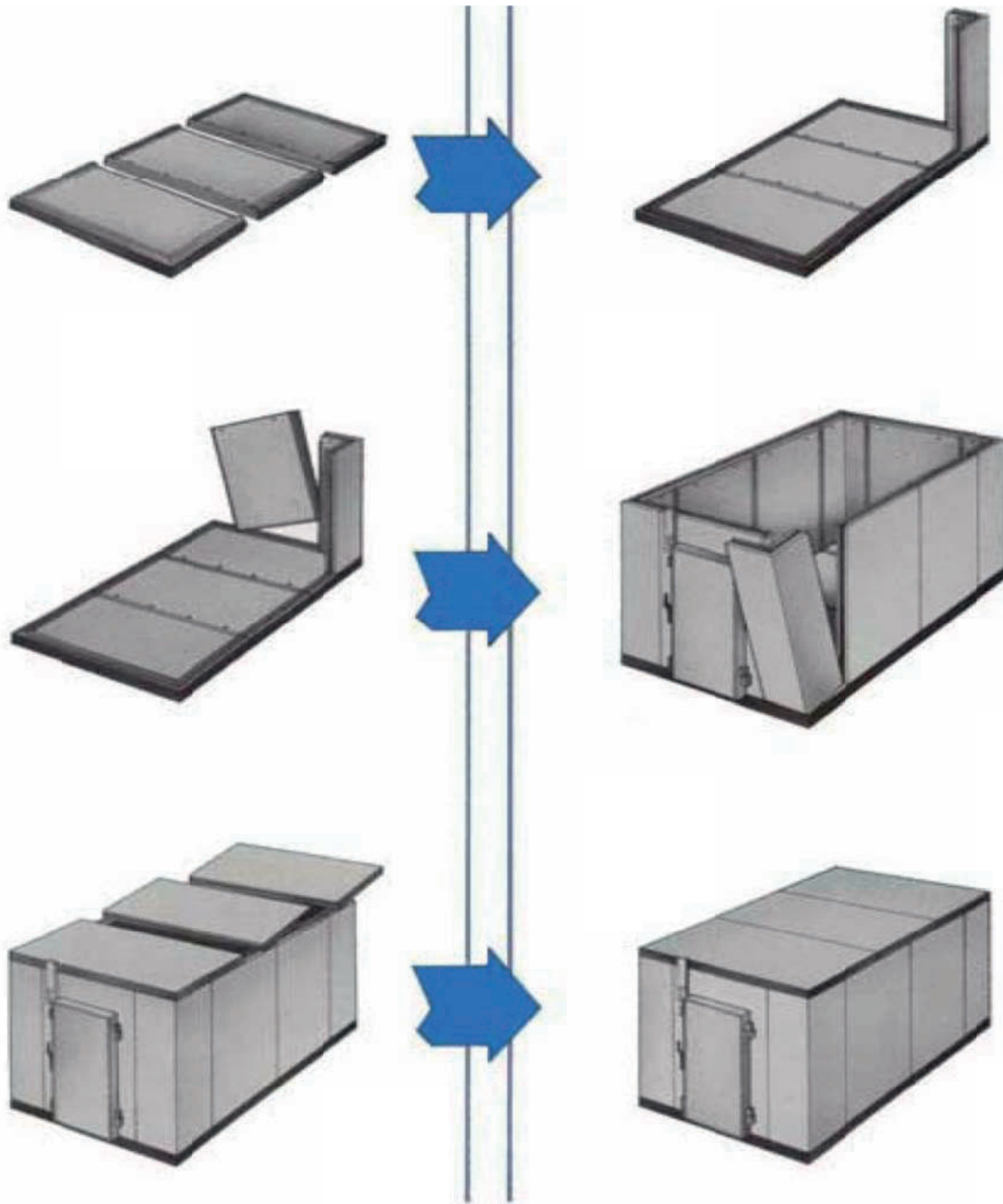
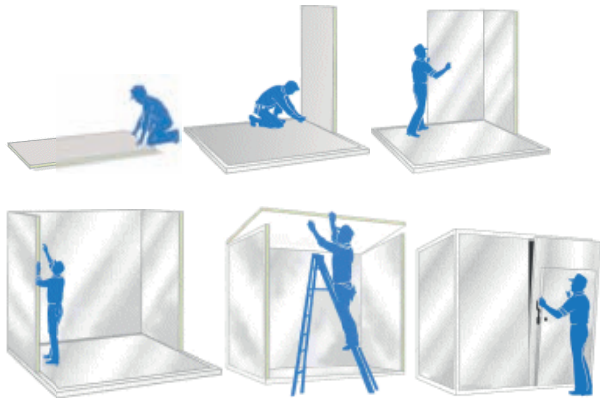
**100% compliance with hygiene standards  
with internal rounded corner**

**100% seal tightness**

**Quality materials**

**Maximum heat insulation**

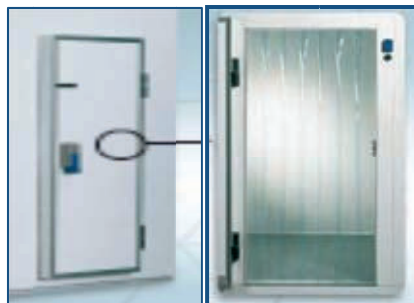
**Sturdy structure**



## WALK-IN CHAMBER STRUCTURE

Floor is made on a flatcar insulated with polyurethane resin and covered with stainless steel sheet, thickness from 0,6 mm. to 1,5 mm. (depending on customers request).

On floor are provided an internal drain device, water proof system and even distribution of pressure.



Walls by modular panels with the following technical features:

Stainless steel AISI 304 or 316 internal / external with thickness from 0,6 mm. to 1,5 mm.

Thickness of panel: from 70 mm. to 140 mm.

Insulation by injection of polyurethane (sandwich method) with density 40 kg/m<sup>3</sup>.

Service door, complete with high quality rubber seals and electrical frame heater and micro-switch device for internal light.





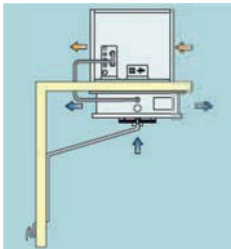

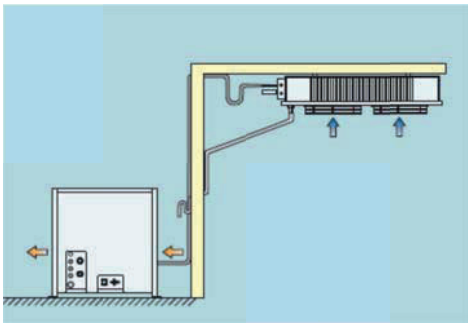
Door internal safety release handle with external key.

Door PVC curtains.

Internal rounded corners.

Internal light (water proof) with automatic microswitch door operated.

## WALK-IN CHAMBER COOLING SYSTEM

By unit condenser/evaporator split units	By Uniblock refrigeration units
   	  



By unit condenser/evaporator split units	By Uniblock refrigeration units
<p>Refrigerated group made up of an hermetic or semi-hermetic compressors complete of air or water cooled condenser and evaporator. This configuration allow a separate installation of cooling devices with possibility to split the condenser unit on remote areas.</p> <p>The cooling plant is complete of:</p> <ul style="list-style-type: none"> <li>Compressor (Hermetic / semi-hermetic) with cooling powers capacity from 200 Watt up to 10.000 Watt (within ambient temp. +43°C).</li> <li>Evaporator, by copper tube and aluminum fins and electric fans, stop by micro-switch door.</li> <li>Air-cooled condenser, by copper tube and aluminum fins</li> <li>Dehydrating filter</li> <li>Oil separator</li> <li>Helix valve</li> <li>Tap and hose</li> <li>Copper and steel piping</li> <li>Insulation for cold piping</li> <li>Electrical cables and connections</li> </ul> <p>Refrigerant:</p> <p>R134A for TN models and R404a for BT models.</p>	<p>Uniblock refrigeration unit by single block including both evaporating and condensing unit as well as the electronic control panel. Unit can be ceiling-wall mounted or pass-through wall or even split mounted: evaporator is in the cold room while condensing unit is outside.</p> <p><b>COMPRESSOR</b></p> <p>Hermetic or semi-hermetic, refrigerant cooled, fitted with full motor protection trough thermistor controlled by electronic devices.</p> <p>Receiver tank.</p> <p>Dryer.</p> <p>Low/High pressure devices.</p> <p>Solenoid valves</p> <p>Pipes.</p> <p>Power cooling capacity from 200 Watt up to 8.000 Watt (within ambient temp. +43°C).</p> <p><b>EVAPORATOR</b></p> <p>By copper pipes, aluminum fins, having a large surface for heat exchange and electro-motor driven fans, stop by micro-switch door.</p> <p>Expansion valve and capillary system.</p> <p><b>CONDENSER</b></p> <p>Condenser copper pipes, aluminium fins, having a large surface for heat exchange and electro-motor driven fans provided with speed regulator.</p> <p><b>REFRIGERANT</b></p> <p>R404A. Flow of refrigerant to the evaporator is throttled by capillary.</p> <p><b>DEFROST SYSTEM</b></p> <p>Carried out by hot gas or electrical heaters; Off cycle by ventilation restart.</p>





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## WALK-IN CHAMBER ELECTRONIC and ELECTRIC SYSTEM

### By unit condenser/evaporator split units



By Microprocessor electronic board E 2003 with automatically recharge accumulator, divided in two sections: one for temperature regulation and the other for the audible and visual alarm system control .

#### Main features:

#### CONTROL SECTION

ON/OFF

INTERNAL LIGHT

MANUAL DEFROSTING

UP (Increase)/ DOWN (Decrease)

LED COLD

LED POWER

DISPLAY (SET TEMPERATURES)

MAIN SWITCH I (ON) / O (OFF)

#### ALARM SECTION

LED ALARM MIN

LED ALARM

LED ALARM MAX

LED BATTERY OFF

LED OPEN DOOR.

LED POWER FAIL.

BUZZER.

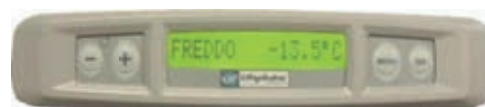
BUZZER OFF

REMOTE ALARM



The electrical plan is made in accordance with the CEI-IEC laws and regulations applicable (Decree L.626). The non-flammable, multipolar cables, designed for the load that they must ensure, will be placed in small channels going from our general control panel to the users.

### By Uniblock refrigeration units



Microprocessor electronic digital regulation system is provided of:

- Working temperature control set .
- LED signal (""HOT"" /""LOW"" ) for alarm system intervention.
- Internal temperature digital display.
- Display ""OFF"" during refrigeration stop.
- ON/OFF manual/automatic internal light.
- ON/OFF for refrigerating system.
- ON/OFF for heating door frame.
- On/Off internal light




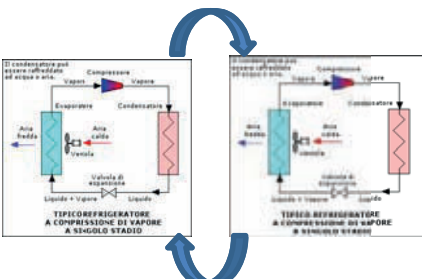

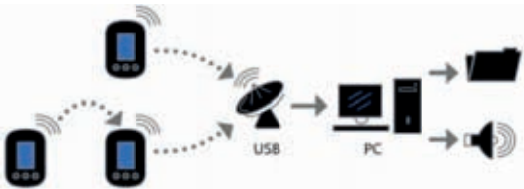


ALARM SYSTEM, with rechargeable backup battery, with:

- Acoustic and visual alarm for Min/Max internal temperature set.
- Open door visual alarm
- Contacts for remote alarm.



The electrical plan is made in accordance with the CEI-IEC laws and regulations applicable (Decree L.626). The non-flammable, multipolar cables, designed for the load that they must ensure, will be placed in small channels going from our general control panel to the users.

## WALK-IN CHAMBER OPTIONS

	<p><i>Battery operated temperature chart recorder</i>  <i>Weekly circular chart paper.</i>  <i>Range from -30°C to +30°C</i></p>
	<p><i>RS 485/232 Interface to PC.</i></p>
	<p><i>INTERNAL SHELVES SYSTEM.</i></p>
	<p><i>STAND-BY COOLING and ELECTRICAL SYSTEM</i></p>
	<p><i>23 mm. PORT HOLE</i></p>
	<p><i>SPY-LOG MONITORING SYSTEM</i></p>
	<p><i>CRYOLOG Software</i></p>
	<p><i>IQ, OQ, Test PROTOCOLS</i></p>



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Life Science Business Unit \_

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