

# CHP250



## POSITIVE REFRIGERATION SYSTEM



### Experimental capabilities

- Identifying the components of a positive refrigeration system
- Commissioning and functional verification
- Study of the basic concept of a refrigeration system.
- Study of the thermodynamic cycle on enthalpy diagram.
- Study of regulation
- The system has an industrial rendering
- The kit is delivered assembled, loaded and functional

DIDATEC– Zone d'activité du parc – 42490 FRAISSES- FRANCE  
Tél. +33(0)4.77.10.10.10 – Fax+33(0)4.77.61.56.49 – [www.didatec-technologie.com](http://www.didatec-technologie.com)  
email : [service\\_commercial@didatec-technologie.com](mailto:service_commercial@didatec-technologie.com)

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As part of the continuous improvement of our products, this technical specification may be modified without previous notifying

Illustrations non contractuelles / Illustrations not contractual

version : FT-CHP250-STD-A

## Operating principle

The positive refrigeration kit allows the study of a positive refrigeration system. The system includes all the standard components such as compressor, condenser, expansion valve, evaporator, cylinders, pressure switches.

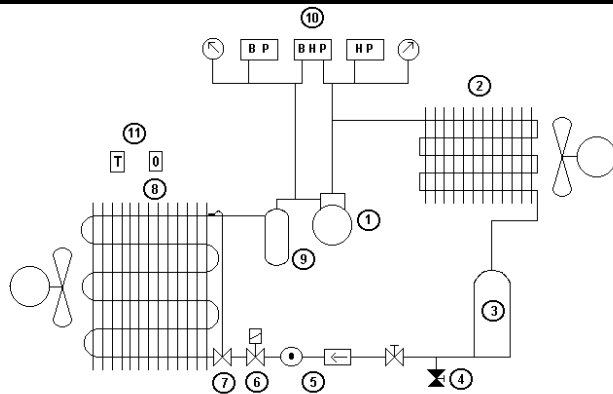
The kit is delivered complete, assembled and functional. Students will be able to work on component identification, commissioning, adjustment and verification of proper operation. They will also be able to recover the fluid and charge (requires tools not supplied with the bench).

The kit is designed to be assembled with DIDATEC type CHB100 cold rooms.

The rugged design of this equipment makes it perfectly suited for use in a school setting.

Its anodized aluminium structure on wheels gives it a very high robustness as well as great flexibility of integration into your premises. The manufacture of this equipment complies with the European Machinery Directive

## Illustrations



1. Hermetic compressor  
Evaporation temperature 0°C  
Maximum pressure: 32 bar  
Power: 900W approx.  
Equipped with two service valves
2. Air Condenser  
Forced convection
3. Liquid Tank  
Vertical Steel  
Volume: 1.5L
4. Refrigerant Recovery Valve
5. Dehydrating Station  
Solid cartridge dehydrator Ø1/4"  
Humidity indicator light Ø1/4"

## Technical details

6. Solenoid Valve  
Normally closed  
Straight passage Ø1/4"
7. Thermostatic expansion valve  
Internal pressure equalization with calibrated orifice (-40°C/+10°C)
8. Air evaporator  
Forced convection  
Evaporation temperature 0°C  
Power: 650W approx.
9. accumulator  
Vertical Steel  
Volume: 1.5L
10. Regulation and safety system  
High pressure gauge  
Low pressure gauge  
High-pressure pressure switch  
Low-pressure pressure switch  
Combined safety pressure switch HBP  
Safety thermostat

The electrical part is composed of:  
-a circuit breaker for each element  
-a refrigeration temperature controller with 2 probes to manage all the components (defrost, ventilation...)

## Services required

- Electrical supply : 230 Vac – 50 Hz – 10 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Dimensions: (LxWxH mm): 800 x 800 x 1700
- weight (Kg): 105

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

## Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Fluidic diagram
- Enthalpic diagram
- Certificate of conformity CE

## Recommended equipment

- Cold chamber
- Ref : CHB100