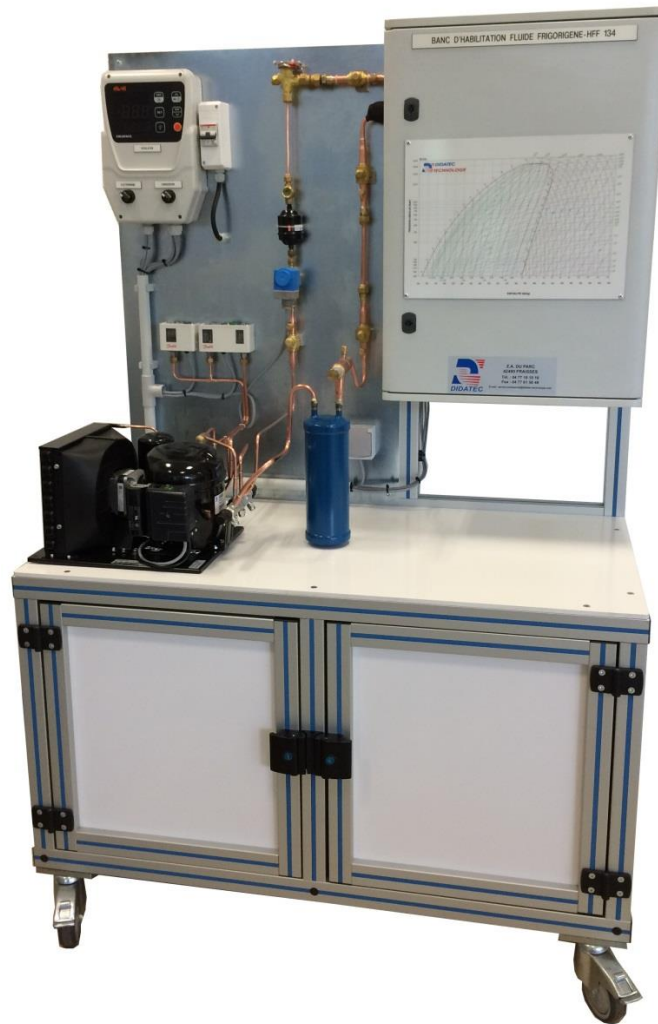


## STUDY OF THE SERVICING OF A R290 REFRIGERATION UNIT



### Experimental capabilities

- Identification of the components of an installation operating with R290
- Commissioning and settings of a refrigerating installation
- Standard operation procedure to recover and load the refrigerant (requires additional tools)
- Setting of the control components (pressure control valve)
- Maintenance operations on a refrigeration installation
- Draw of the refrigeration cycle on enthalpy diagram to check the operation of the installation

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

# HFF290



## Operating principle

The bench HFF 290 is designed to train the learners in the handling of refrigerants R290. The installation is based on a refrigerating cycle operating with R290. It comprises the main components of a positive installation, a compressor, a condenser, a receiver, a solenoid control valve, an expansion valve, an evaporator and a suction line accumulator. Service valves and fittings Schrader type allow the learners to connect a manifold for the load operations, recovery operation and verification operation.

The cold chamber is simulated by a cabinet. The cabinet door is equipped with an enthalpy diagram R290 with erasable surface (format A3). A thermostatic control box will control the operation of the solenoid valve (pump down control). Two switches located on the box are used to stop the operation of the solenoid valve and of the condenser (this facilitates adjustment of the pressure switches).

The robust design of this equipment makes it perfectly suited for use in schools. Its anodized aluminum structure on wheels makes it extremely robust as well as a great flexibility of integration into your premises. In the lower part, the bench comprises a storage area equipped with two doors with key locking (storage of tooling).

## Technical details

1. Hermetic compressor power 425W using R290 refrigerant (evaporation -10°C/ condensation 45°C)
2. Safety valve
3. Air condenser forced ventilation with speed controller
4. Service valves
5. Safety pressure switch HBP
6. Pressure switch HP
7. Filter + dryer 1/4"
8. Ball valve with connector Schrader 1/4"
9. Expansion valve
10. Evaporator with forced convection power 495 at dt 7K with defrost heater

The bench also includes :

- A control box Elliwell RC500 with 3 switches :
- stop forced condenser
- a cold chamber simulated by a cabinet. The cabinet door is equipped with an enthalpy diagram R290 with erasable surface (format A3)
- a storage area in the lower part of the frame with two access doors. A key lock is used to secure the storage

## Services required

- Power supply : 230 Vac – 50 Hz – 10 A
- Power supply type : 1 phase(s) + Neutre + Terre
- Dimensions: (LxH mm): 1160 x 640 x 1790
- Weight (Kg): 150

## Documentation

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

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