

## AC & Refrigeration

### Description

Our AC & Refrigeration teaching units and computer based software are designed to teach students all the basic principles, therefore ensuring that the next generation of engineers are able to fully understand and contribute to the fundamental changes now taking place in the industry.



## MECHANICAL HEAT PUMP

A fully instrumented bench top air to water heat pump operating on the mechanical vapour compression cycle with Panel: High quality ABS plastic panel on which the following components are mounted. It consists of a hermetic compressor, an insulated coiled concentric tube water cooled condenser, a liquid receiver, a thermostatically controlled expansion valve and air heated evaporator.

The components are clearly but compactly arranged in a manner similar to that used for many domestic air-water heat pumps and all are visible from the front of the unit.

## REFRIGERATION CYCLE DEMONSTRATION UNIT

A bench mounted vapour compression refrigeration cycle demonstration unit using a hermetic compressor and water cooled flooded glass condenser and evaporator. A float controlled expansion device controls the flow of refrigerant in the system. Unit operates on low-pressure non-toxic ozone friendly refrigerant. Internal electrical and mechanical safety devices allow for unsupervised operation by students. Standard instrumentation fitted enables measurement of the condenser and evaporator pressures and temperatures as well as water flow rates and water temperatures.

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## WATER HEAT PUMP

The components of the heat pump and its instrumentation are mounted on a gloss finish high quality plastic panel. The heat pump consists of a hermetic compressor, an efficient plate heat exchanger condenser and evaporator, a liquid receiver, a thermostatically controlled expansion valve.

The components are clearly but compactly arranged in a manner similar to that used for many domestic air-water heat pumps and all are visible from the front of the unit.