

## HP 141 RECIPROCATING PUMP DEMONSTRATION UNIT, Computer Interface



*Photograph includes optional equipment*

### GENERAL DESCRIPTION:

This is a self-contained unit for studying the reciprocating pump characteristics with data display and analysis by computer.

The unit consists of an industrial reciprocating pump driven by a reduction gear and motor, a PVC storage tank, sensors, and software. The unit is on a steel base.

It is to be used with HP 104 Advanced inverter with computer interface unit is required but separately supplied.

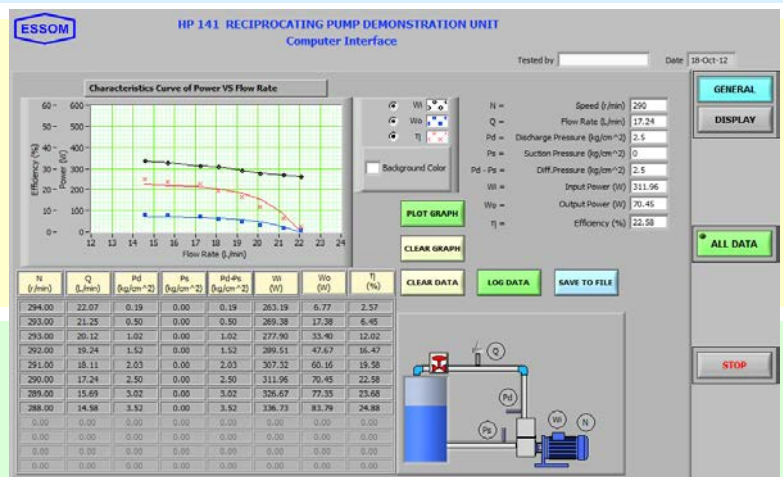
Instruction manual is also included.

### EXPERIMENT CAPABILITIES:

- Flow rate vs head characteristics.
- Pump input, output and overall efficiency at various speeds.
- Effect of pulse chamber.
- Volumetric efficiency.

### TECHNICAL DATA:

- Pump rating
  - Maximum flow rate : 15 Lpm.
  - Maximum head : 30 m water
- Pump accessories
  - Pressure relief valve at pump discharge
  - Pulse chambers for pump suction and discharge
  - Isolating valve for discharge pulse chamber
  - Discharge flow control valve
- Speed control : HP104 (separately supplied)
- Sensors with digital display : Pressures for pump suction and discharge  
: Speed and motor input power  
: Flow rate
- Software for data display and analysis by computer (separately supplied).



### OPTIONAL EQUIPMENT:

- Water temperature sensor
- Pump of different head and flow instead of standard pump
- HP104 Advanced inverter with computer interface unit (required accessory).
- HP 141-030 PV diagram  
This includes piston displacement sensor, cylinder pressure sensor, and software for display of P-V diagram on computer (separately supplied).
- HP 141-060 Computer control  
This includes computer interface unit with flow control motor, HP 104 Advanced inverter and additional software function for control by computer (separately supplied).
- Other optional equipment, please contact manufacturer (essom@essom.com)

**Net (unpacked) shipping dimensions WxLxH** : 80 x 120 x 75 cm  
**Net weight** : Approx. 58 kg

