



Features:

- A small-scale plunger pump demonstration unit, comprising of a water reservoir, pump, control valve, relief valve, and interconnecting pipework, all mounted on a stainless steel base. ➤ Includes both a sprung loading valve and a needle valve for loading the pump.
- Equipped with electronic measurement sensors for cylinder pressure, plunger position, pump outlet pressure, and cumulative flow.
- Pulsation damping facility.
- Transparent pump head for visibility.
- Capable of being linked to a PC (not supplied) via an interface console (an essential accessory).
- Supplied with optional software providing full instructions for setting up, operating, calibrating, and performing the teaching exercises. Facilities provided for logging, processing, and displaying data graphically.
- Full theoretical back-up included together with a student questions and answers session

Tesca Plunger Pump Demonstration Apparatus is a motor-driven plunger pump, mounted on a stainless steel plinth with a water reservoir, pulsation damper, and pipework for continuous circulation. The pump head, measuring tank, pulsation damper, and the water reservoir are manufactured from clear acrylic for maximum

visibility. The pump outlet is connected to both a sprung loading valve and a needle valve to investigate different loading characteristics. A pressure relief valve protects the operator and the equipment. An additional valve can be used to isolate or include the pulsation damper, allowing the effect of damping to be investigated

Electronic sensors measure the instantaneous cylinder pressure within the pump, the pump displacement, and the cumulative flow over a period of time.

Specifications:

- Max flow rate: 0.725 l/m typical
- Max head: 4 bar
- Swept volume: 15mm stroke x 32mm diameter
- Pumping speed: variable up to 60 strokes/minute
- Motor power rating: 250W

Experiments:

1. Plunger displacement
2. Cylinder pressure
3. Pump outlet pressure
4. Line P-V diagram displays
5. Sprung loading valve or needle valve
6. Adjusting the outlet loading valve
7. The inclusion of a pulsation damper vessel

Services Required:

1. Mains power supply: 220-240V, 1Ph, 50Hz

Note: Specifications are subject to change.

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