

KFM-72

PISTON PUMP DEMONSTRATOR



Piston Pump Demonstrator Model KFM-72 enables the pump curve of a reciprocating pump to be measured. The trainer consists of the pump with an electric drive motor, the pipe system with supply tank and a container for volumetric flow measurement. Electronic sensors provide the delivery pressure and the pressure in the cylinder; a position sensor is used to determine the position of the connecting rod and thus the volumetric displacement. The pressure level in the system is maintained constant using a pressure retention valve. The pulsating pressure characteristic of the pump can be damped with an air vessel. Optionally interfacing, data acquisition makes it possible to record measured values during experiments to process and store data on PC.

Specifications

- Study of the operation and working of piston pump.
- Determination of power requirement of the pump.
- Determination of the hydraulic power output of the pump.
- Investigation of the performance and characteristics of piston pump:
 - The effect of pump speed.
 - Head, discharge, speed, power and efficiency curves.
 - Non-dimensional performance curves.
 - Determination of specific speed.
 - Determination of net positive suction head

Experiment Possibilities

- Characteristic curve of a reciprocating pump
- Influence of pulsation attenuation
- Pressure characteristic of delivery pressure and cylinder pressure
- Preparation of p-V diagram (In case of DAQ computerized only)
- Determination of efficiencies using external power meter.

Services required

Mains Power Supply: 220-240V, 50Hz, 1Ph

The manual describing the theoretical and practical aspects of the apparatus, operation, analysis of results, and sample of results will be supplied with the equipment.

Note: Specification & Photos can be altered without notice in our constant efforts for improvement