# Flow Measurement Systems

Educational Training Equipment for the 21st Century

Bulletin 698-2

H-6982

Multi-Pump Test Bench

## **Purpose**

The Hampden **MODEL H-6982** Multi-Pump Test Bench provides a hands-on introduction to pump design and application. The student will operate each of the test pumps in various modes using the provided instrumentation for flow, speed, head and torque measurements.

## **Specifications**

### Base:

 Constructed of 2" square mechanical steel tubing with four swivel casters, two with brakes. Finished in instrument tan texture. Access ventilated doors with full piano hinged and quick-disconnect fasteners.

### **Control Panel:**

 Enclosure is 14 gauge code gauge steel finished in instrument tan texture. The panel is 11 gauge furniture stock steel finished in instrument white enamel.

### **Control Panel Instruments:**

- Tachometer
- Digital indicator on panel
- Photo pickup on shunt wound DC motor

### Gauges:

· Delivery, suction and flow

### **DC Motor Speed Drive:**

 Variable with speed ratio of 50:1, regulation of 2% or better and speed control potentiometer. On-off switch and pilot light provided.

### Valves:

092713

Throttling, Control and Dump.

### Torque Indicator:

- Mechanical with clear face protector
- Torque arm
- · Counter balance weight and linkage.

### Manifold:

4-port, ports are controlled via globe or gate valve.

### DC Shunt Motor:

- Trunnion frame mounted, sized for the various pumps supplied.
- Provided is a toothed drive pulley system designed to drive one of four pumps.
- The motor is controlled by the DC motor speed drive.

### Tanks:

- One calibrated volumetric measuring tank with dump valve.
- One sump tank with drain ball valve and system fill valve.
- One channel with insertable notches.

### Pumps:

- · Centrifugal pump
- Vane pump
- Gear pump
- Piston pump
- Wetted parts are non-ferrous for corrosion protection.

### Protection:

 Main circuit breaker is a ground fault interrupter type.

### Nomenclature:

 Brown white-core engraving stock secured to the panel with stainless steel self-tapping screws.

### Accessories:

- 1 Vernier hook-gauge
- 1 Weir, "V" notch
- 1 Operating instruction manual

## **Optional Equipment**

MODEL H-6982-10 Diaphragm Pump

MODEL H-6982-20 Axial Pump

MODEL H-6982-30 Turbine Pump

## **Services Required**

120V AC - 16 - 60 Hz

All Hampden units are available for operation at any voltage or frequency

