

**“UNPARALLELED PERFORMANCE AND SAFETY UNDER PRESSURE!”**<sup>®</sup>



TestMaster<sup>®</sup>  
**Model HPS**  
Hydraulic Power Supply

- Pressures up to 30,000 psi (2,068 bar)
- Hydrostatic testing, leak testing
- Manual, semi-automated, PLC touch screen
- Cycle times as fast as 2 seconds
- Manufactured to customer specifications

**DESCRIPTION**

The TestMaster<sup>®</sup> Model HPS is a high-performance hydraulic power supply and source of hydrostatic water pressure, used for leak testing of tubes, pipes, hoses, valves, air-conditioning coils and other assemblies.

At its core is an air-driven water pump, providing up to 30,000 psi (2,068 bar) of water pressure when driven by only 100 psi (7 bar) of air.

The HPS System, when combined with TestMaster<sup>®</sup> Tools, provides a safe, efficient means of hydrostatic testing.

**APPLICATION**

The TestMaster<sup>®</sup> Model HPS when used with Airmo tooling, is suitable for hydrostatic pressure testing according to military, nuclear, automotive, and aerospace specifications such as API, ASTM, ASME, ISO, DIN, and BS.

**Hydrostatic Testing**

- Aerospace hydraulic and pneumatic lines
- Gas cylinders
- Heat exchangers
- Hydraulic components and systems
- Oil and gas piping
- Tube and pipe mills

**CONSTRUCTION**

Frame:	Aluminum extrusion 36 in. x 32 in. x 55 in. (914 mm x 813 mm x 1,397 mm)
Air-Driven Pump:	Corrosion-resistant materials
Valves and Fittings:	Stainless steel or brass
Water Piping:	Heavy wall stainless steel tubing
Gauges/Transducers:	Stainless steel construction

**SYSTEM CONFIGURATION**

Maximum Pressure:	Up to 30,000 psi (2,068 bar) depending on air-driven pump
Maximum Flow:	Up to 12 gpm (45.4 lpm), depending on fill pump and air-driven pump
Air Input:	Requires 95 psi (7 bar) and 18 SCFM for maximum performance
Electrical:	Tailored to electrical service used
Control Options:	Manual, semi-automated, PLC touch screen

**OPERATING CONDITIONS**

Temperature:	32° F to 120° F (0° C to 49° C)
Services:	Water or de-ionized water, 20 psi (1 bar) minimum
Cycle Time:	2 seconds for small volume tubes
Noise Level:	Pumps run quietly, and silent when dwelling at pressure.

**MAXIMUM PRESSURE**  
**30,000 psi**  
**2,068 bar**

TestMaster®  
**Model HPS**  
**Hydraulic Power Supply**

### **BASIC SYSTEM**

- **Air-driven water pump**, reliable with pressure outputs of 10,000, 20,000, or 30,000 psi; (689, 1,379, 2,068 bar).
- **Precision air regulator**, supplies water pump, giving operator greater control of pressure.
- **Analog gauges**, high accuracy and durable for incoming and regulated air pressure, and output water pressure.
- **Water and air filters**, reduce contaminants for better system protection.
- **Air-operated control and relief valves**, corrosion resistant and durable.
- **Rugged aluminum framework**, with protective mesh panels, and casters for easy portability.
- **Foot pedal**, controls pressure cycle.

### **POPULAR OPTIONS**

- **Digital display**, shows system pressure in real time, records and displays peak pressure.
- **Process meter**, provides six-digit pressure display and recall of maximum pressure achieved.
- **Electric fill pump**, two sizes available with PLC control. These pumps, in conjunction with an air-driven pump provide shorter cycle times by filling tubes quicker.
- **Adjustable dwell timer**, holds pressure at predetermined level for up to 10 minutes.
- **Air purge**, quickly evacuates water from tubing after pressurization; includes second foot pedal.
- **Job chest enclosure**, capability to ship compact system to job sites without additional packing; secure unit with locks.  
Electric options not available with this enclosure option.

### **CUSTOMIZED SYSTEMS**

Airmo can engineer and build systems to customer specifications based on:

- **Exterior dimensions**
- **Pressure capabilities**
- **Test requirements**

### **CUSTOM-DESIGNED OPTIONS**

- **PLC touch screen**, provides a visual display for accurate, repeatable performance with no pressure loss.
- **Hand-held push button pendant**, replaces standard foot pedal for controlling machine functions.
- **Optical touch switch**, uses LED indicators to sense finger placement to activate system pressure cycle.
- **Isolation valve**
- **Back pressure regulator**
- **Data collection**
- **Multiple pressure outlets**



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