

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



TestMaster<sup>®</sup>  
**Model 30096HT**  
**Hydrostatic Burst Test Chamber**

- Pressures up to 30,000 psi (2,068 bar)
- Non-destructive or destructive test chamber for pressure, leak, burst, and cycle testing
- Manual, electronic controlled, or fully-automated
- Typical cycle time from 5 seconds
- Manufactured to customer specifications

**DESCRIPTION**

The TestMaster<sup>®</sup> Model 30096HT Hydrostatic Burst Test Chamber is a high-performance source of hydrostatic water pressure used in non-destructive and destructive testing applications. The Burst Test Chamber utilizes a variety of pressure testing methods including hydrostatic testing or air under water testing. At its core is an air-driven water pump, providing up to 30,000 psi (2,068 bar) water pressure when driven by 100 psi (7 bar) air input.

The Model 30096HT Burst Test Chamber is designed and manufactured to customer specifications for size, pressure capabilities, and testing requirements. System options include manual control, auto-cycling, PLC control, or PLC touchscreen interface. The stainless steel construction makes this system durable for fully automated, high-volume production line testing.

**APPLICATION**

The TestMaster<sup>®</sup> Model 30096HT Hydrostatic Burst Test Chamber when combined with TestMaster<sup>®</sup> Hydrostatic Test Tools provide a safe, efficient means of testing products such as tube and hose assemblies, valves, and air conditioning coils. The unit is suitable for testing according to military, nuclear, automotive, and aerospace specifications such as API, ASTM, ASME, ISO, DIN, and BS.

**Non-Destructive and Destructive Testing**

- Pressure drop testing
- Leak testing
- Burst testing
- Cycle testing
- Research and development testing

**CONSTRUCTION**

|                      |  |
|----------------------|--|
| Frame:               | Aluminum extrusion<br>60 in. x 30 in. x 42 in.<br>(1,524 mm x 762 mm x 1,066 mm) |
| Reservoir Tank:      | 48 in. x 26 in. x 12 in.<br>(1,219 mm x 660 mm x 304 mm)                         |
| Safety Cover:        | 0.5 in. (12.7 mm) high strength polycarbonate; hinged cover                      |
| 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          |
| Accuracy:         | ±50 psi (±3.45 bar)  |
| 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, auto-cycle, PLC control, PLC touch screen interface        |

**OPERATING CONDITIONS**

|              |  |
|--------------|--|
| Temperature: | 32° F to 120° F (0° C to 49° C)                          |
| Services:    | Water, de-ionized water, oil                             |
| Cycle Time:  | Typical cycle time from 5 seconds                        |
| Noise Level: | Pumps run quietly, and silent when dwelling at pressure. |

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

TestMaster®  
**Model 30096HT**  
**Hydrostatic Burst Test Chamber**

## **BASIC SYSTEM**

The Model 30096HT Hydrostatic Burst Test Chamber basic system is configured as follows:

- **Test tank assembly**, stainless steel interior for destructive and non-destructive testing.
- **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.
- **Reservoir**, five gallon fill reservoir, no water recirculation.
- **Water and air filters**, reduce contaminants for better system protection.
- **Air-operated control and relief valves**, corrosion resistant and durable.
- **Rugged aluminum framework**, with casters for easy portability.
- **Foot pedal**, controls pressure cycle.

## **POPULAR OPTIONS**

Popular options available for the Model 30096HT Hydrostatic Burst Test Chamber include:

- **Digital display**, shows system pressure in real time, records and displays peak pressure.
- **Process meter**, provides 6 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.

## **CUSTOMIZED SYSTEMS**

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

- **Exterior dimensions**
- **Pressure capabilities**
- **Application requirements**

## **CUSTOM-DESIGNED OPTIONS**

The Model 30096HT Hydrostatic Burst Test Chamber can be custom built with features such as:

- **PLC control**
- **PLC touch screen interface**
- **Data collection**



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