

Automated Burst Pressure Tester

Description

The APP Automated Burst Pressure Tester (ABPT) determines the exact pressure at which materials burst or fail within a pressure range of atmospheric to 5000 PSI (pneumatic system) and atmospheric to 60,000 PSI (hydraulic system). The ABPT is completely microprocessor controlled and fully automated.

Software

Easy-to-use ABPT software is compatible with Windows '98 and higher. Throughout the pressure control process, this software provides useful reports and data, including a real-time graphical display of pressure versus time. The ABPT main system screen displays and allows the user to control parameters, including the initial burst target pressure, pressurization rate, and holding time. If the expected burst target pressure is reached without bursting the material, the user either can continue pressurizing to find the exact burst pressure, or discontinue the test. If the material bursts prior to reaching the expected burst target pressure, pressurization ceases. Upon completion of the burst pressure test, data can be downloaded to Excel for further analysis. Advanced Pressure Products also has the capability to customize the software to produce reports and data required for a specific application.

Applications

The ABPT is ideal for quality control. Defective battery casings, unable to withstand a designated pressure, can be identified and discarded. With loading capabilities of up to 64 casings (AAA, AA, C, or D) simultaneously, the ABPT is practical and efficient. The ABPT also can be modified to test multiple battery casings in sheet form.

Features

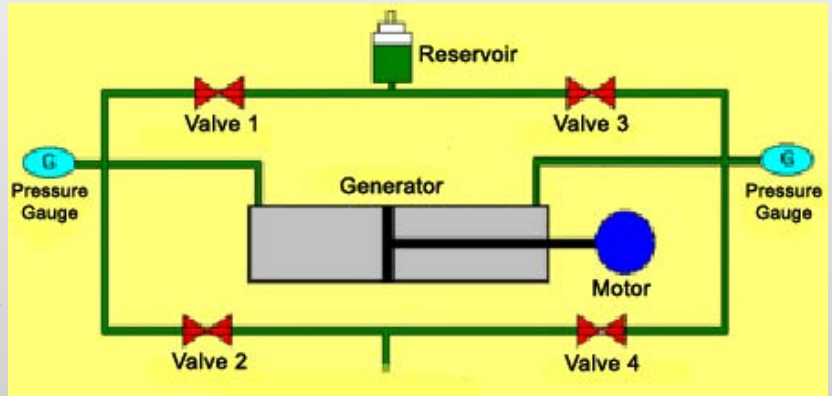
- Highly accurate pressure transducer monitors system pressure and provides feedback
- User-defined target pressure, holding time, and pressurization rate
- Test can be performed under elevated temperature to simulate actual operating conditions (optional)
- Multi-level, fail-safe system provides over-pressurization protection
- Windows-based software handles all control, measurement, data collection, and report generation; complete manual control also possible
- Compatible with Windows '98 and higher. Results throughout operation
- Real-time graphical display depicts testing status and results throughout operation
- Multiple pressure outlet ports available
- Automatic pressure generator refill for high volume situations
- Multiple pressure generator systems for continuous and multi-axis pressurization (optional)
- Customized report formats available
- Minimal maintenance required



Hardware: Hydraulic System (Application up to 60,000 psi)

The Automated Burst Pressure Tester - Hydraulic System comprises a motorized pressure generator, pressure gauges, high-pressure motorized valves, and a pressure controller. The DC motor driven piston pressure generator produces up to 60,000 PSI output. A highly accurate pressure transducer monitors system pressure and provides feedback.

The ABPT - Hydraulic System has two control modes: multi-target pressure control and pressurization rate control. (Control algorithms are based on PID control.) Multi-target pressure control allows the operator to reach the targeted pressure quickly and smoothly, while minimizing overshoot. Additionally, multi-target control holds the designated pressure for a specified length of time. The pressurization rate control provides operator control of the pressurization rate at which the target is approached.



Specifications

Pneumatic

Hydraulic

Working Fluid	N/A	N/A
Air Requirement	80 psi	80 psi
Pressure Range	0 - 5,000 psi	0 - 5,000 psi
Pressure Transducer	Range: 0 - 5,000 psi Accuracy: Up to 0.01 % FS	Range: 0 - 5,000 psi Accuracy: Up to 0.01 % FS
System Resolution	1/20,000 (65536 optional)	1/20,000 (65536 optional)
System Control Accuracy	+/- 0.02 % FS	+/- 0.02 % FS
Pressurization Rate	0.1 psi/sec - 200 psi/sec	0.1 psi/sec - 200 psi/sec
Maximum Hold Time	Infinity	Infinity
Power Requirements	110 VAC, 60Hz (220 VAC, 50 Hz optional)	110 VAC, 60Hz (220 VAC, 50 Hz optional)
Dimensions	51" h x 28.5 w x 26" d	51" h x 28.5 w x 26" d
Weight	150 lbs	300 lbs

Advanced Pressure Products
 20 Dutch Mill Rd, Ithaca, NY 14850 USA
 Tel: (607)-257-5544 Toll Free in USA & Canada: 1-800-APP-VALV
 Fax: (607) 257-5639 Email: appinfo@pmiapp.com

