



Impulse Pressure Test Systems



Fluid Power Capabilities

Genuen is an industry leader in fluid power test systems. From building complex avionic systems to testing a single critical component, our solutions are designed and built to maximize performance and reliability. By applying sound engineering, creativity, and a full understanding of the customer's testing needs, we develop custom turnkey test stands for system, sub-system, or component-level products or machinery modernization. We also provide high levels of flexibility using commercial off-the-shelf technologies.

We match each physical test system with high performance controls, from simple open loop PC- or PLC-based controls to embedded real-time systems utilizing the latest innovations in control and instrumentation hardware. Many customer solutions include cutting-edge FPGA and system technologies that marry multiple control platforms.

The heart of any good control system is the application software. Whether developing a custom LabVIEW™ application to meet a specific requirement or using our proven *INERTIA*™ control and automation suite, our solutions always provide an intuitive, highly flexible test environment with overall capabilities previously unattainable at its cost point.

Impulse Pressure Test Stands

Genuen provides state-of-the-art, custom Impulse Pressure Test Stands for all industries. From small tabletop or portable systems to multiple unit chambers, Genuen can provide a system to meet all of your testing requirements.

Standard Test Parameters Include:

- A variety of test fluids to meet your product testing applications
- Test fluid pressures up to 60,000 psi
- System flow rates up to 200 gpm
- Test frequencies up to 10 Hz
- Pressure profiles from simple square waves to the more complex 20-point aerospace wave forms

WINEMAN TECHNOLOGY IMPULSE PRESSURE TEST STAND CAPABILITIES *



- Control :**
 - Genuen's standard or custom real-time process control utilizing National Instruments LabVIEW™ software and Horner PLC solutions
 - 19-inch monitor, mouse, and keyboard
- Test Chamber :**
 - Test chambers with horizontal or vertical orientation designed to suit the unit under test (UUT) size, number of UUTs being tested, and UUT weights
 - Portable to fixed placement systems
 - Perforated work surface designed to capture, filter, and reuse lost fluid
- Power :**
 - Single- or three-phase power systems with 110 VAC or 24 VDC control power
- Testing Fluids :**
 - Air, water, glycol mixtures, oils, phosphate esters, and AFT fluids among others
- Test Pressures :**
 - 500 psi, 1,000 psi, 3,000 psi, 5,000 psi, 10,000 psi, 14,500 psi, 20,000 psi, 30,000 psi, 40,000 psi, and 60,000 psi service rated systems
 - Pressure rate of rise curves to suit your application
- Input Flows :**
 - Input flow rates up to 200 gpm
- WTI Impulse System Standard Software Package :**
 - Proof, proof then impulse, and impulse to burst testing modes
 - PC-based control system utilizing National Instruments hardware
 - Automatic, manual, and learn-in modes
 - Standard test screen that provide entry points for part serial number or test ID number, part description, technician ID and comments, lab report number, and selection of a previously created test profile (created in test configuration screen)
 - Indicator screen that provides annunciating system safety interlocks, system faults, and display of system pressure versus time
 - Test sequences that run to either completion or to a detection of a fault
 - Preset or user-configurable pressure test frequencies, ramp rates (psi/sec), stepped pressure control, hold times, maximum pressure selections, and control point selection
 - Data that is automatically sequenced and stored with references to the test date
 - Collected data that is saved and downloadable as delimited text files for easy access with Microsoft Excel
 - Genuen's standard or custom data reporting and charts
- Standard Options:**
 - Available options include combination impulse, pressure pulsation, and burst test stands
 - Temperature-controlled test chambers and fluid temperature control (FTC) systems from -40°F to 350°F
 - Observation windows or interior high speed cameras
 - Carbon steel or stainless steel fluid systems and chambers
 - Test sumps for submerged testing
 - Test frames or fixtures to suit
 - Multiple or isolated UUT channels for parallel UUT testing
 - On-board or facility fluid supply systems
 - Manual or automatic part filling and purging
 - Tests in accordance to SAE, API, ISO, APR, ASTM, etc.
 - On-board printer

****Specifications subject to change without notice.***