



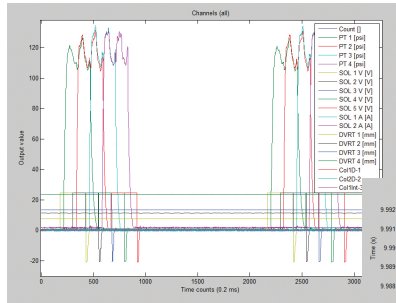
Test & Verification



We can guide you through the complexities associated with hardware and software integration, validation, and regulatory compliance testing that can seem overwhelming.

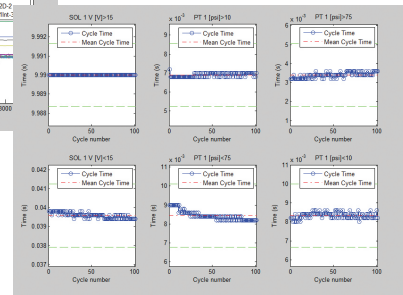
At AMD&E, we understand the rigors of testing and verification to meet program demands. Our services are tailored to meet the specific demands of each project, and our staff is qualified and trained specifically for each test activity we undertake for our customer. All results are documented to satisfy customer requirements as well as all applicable regulatory and governmental requirements.

Our test and verification service saves our customer time and money, and provides comprehensive, understandable results that will satisfy compliance needs or help with ongoing product development.



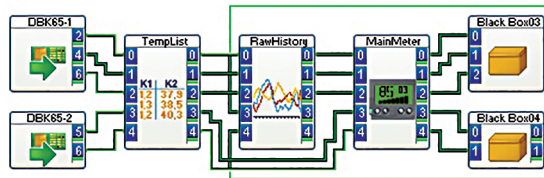
Real Time Data Collection

High frequency testing of an electro-mechanical-pneumatic system.



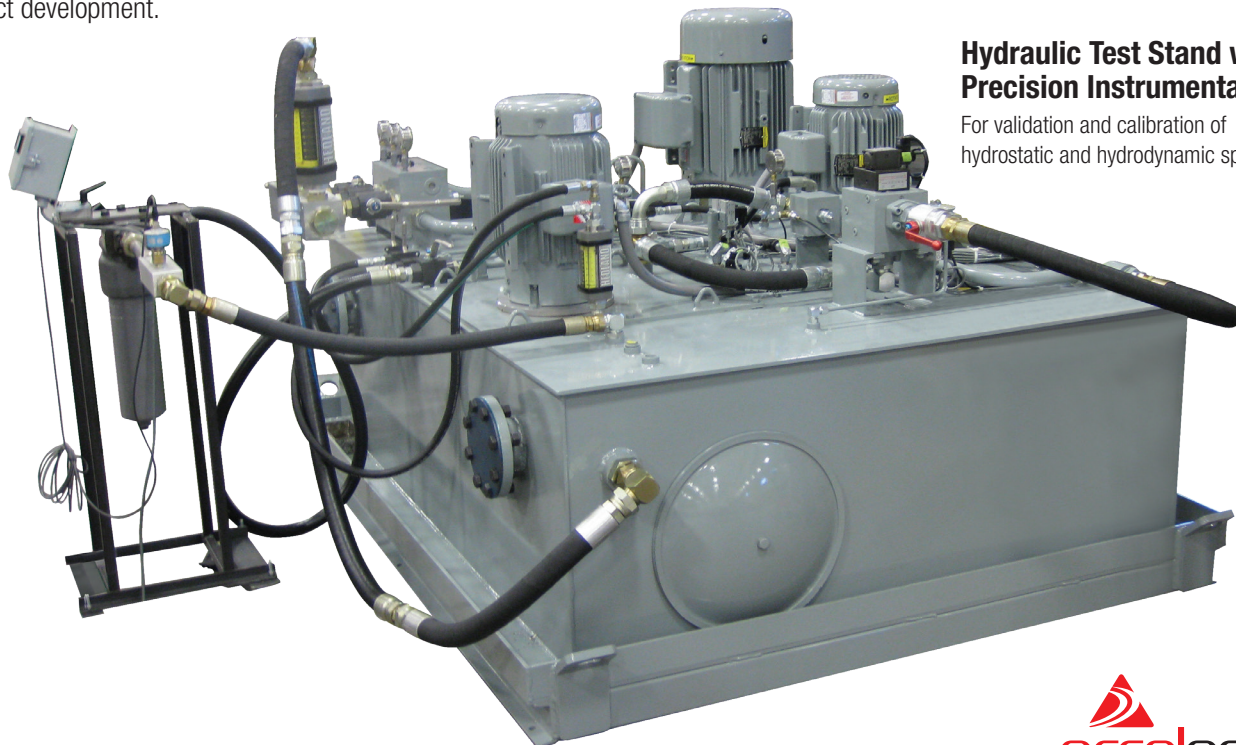
Automated Post Processing of Test Results

Repeatability testing and validation of solenoid valves for mission critical system.



Test Stand Programming & Software Development

Application programming using graphical interface, or structured text.



Hydraulic Test Stand with Precision Instrumentation

For validation and calibration of hydrostatic and hydrodynamic spindles.



Test Stand Development

- Mechanical, electrical, pneumatic, hydraulic, thermal & acoustic test systems
- Test stands for aerospace, medical, automotive & defense manufacturing industries
- Calibration stations
- Component manufacturing verification and assembly verification stations
- Measurement computing hardware and software development, including LabVIEW
- In-process, real-time, remote data collection and analysis capability
- Post-processing, analysis, and reporting

Electrical Testing

- Specification compliance (design verification) and performance verification
- Analog and digital signal testing
- PCB testing, hardware testing, harness & cable testing
- Test equipment verification
- Performance verification to agency standards

Software Testing

- Feature testing
- Emulation
- Static, dynamic, white box, black box, grey box, regression, etc.

Mechanical Testing

- Mechanical property testing: hardness, displacement, stress, strain, elongation, compression, fatigue, and impact to ASTM standards
- Material property testing: composition, corrosion
- Mechanical system testing: pressure, displacement, vibration, acceleration, velocity, torque, etc.
- Dynamic system performance evaluation
- Modular, reconfigurable, high-frequency multi-channel DAQ in-house test stand for rapid data collection

Non-Destructive Testing

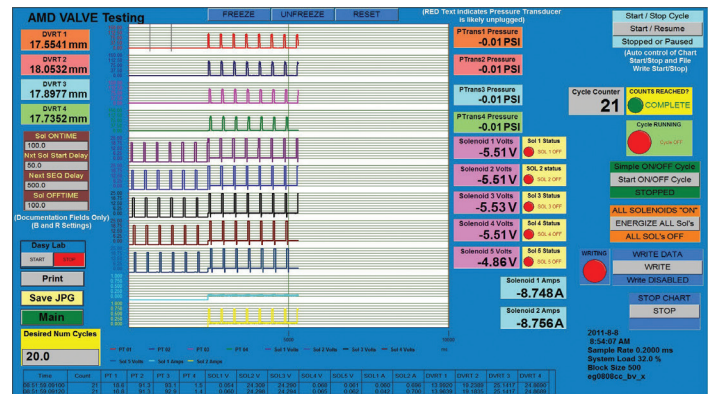
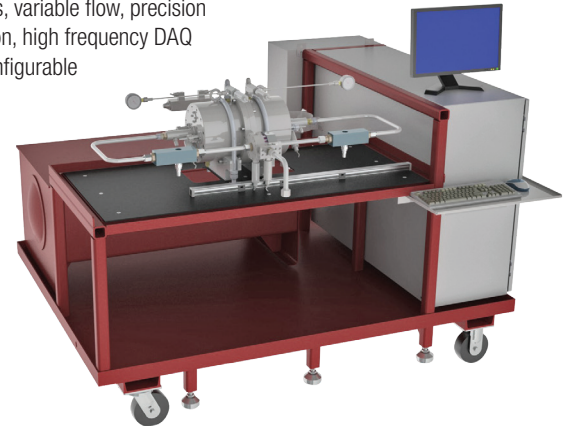
- Modal response & vibration characterization
- X-Ray inspection, magnetic particle inspection, fluorescent penetrant inspection
- Dimensional & geometric inspection

Geometric Inspection

- Dimensional and geometric part inspection to ASME Y14.5 standards for geometric dimension and tolerances for individual component and assemblies
- Optical inspection: micro & macro
- CMM, measuring arm, laser tracker
- Laser & white light scanning

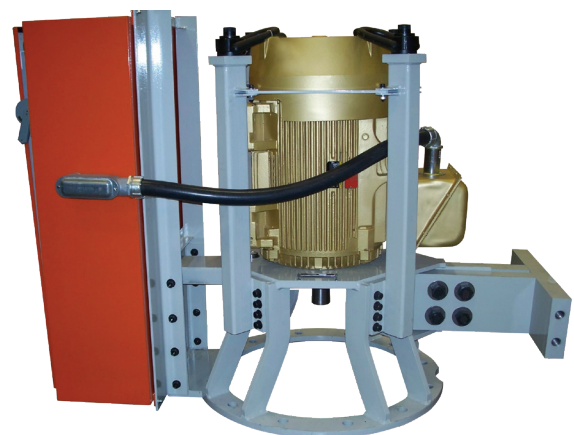
Modular and Portable Electro-Hydraulic Test Stand

VFD driven pumps, variable flow, precision pressure regulation, high frequency DAQ system, and reconfigurable hydraulic valving and porting.



Test Stand Software Development

Customized front ends, HMI's, and data output capabilities.



150HP Test Stand for Mining Transmission

Endurance testing and HALT testing.