

Test Stands

Electrical System Integrator



Quad Plus is known to many industries for turnkey; electrically driven test stands used for product validation, recertification, and research. Starting with your testing requirements, we provide design and implementation services from specific component systems to complete site turnkey facilities.

Project ID and Development

We start by listening to our customers and analyzing their needs, then recommend project requirements that create a functional specification and single-line diagrams. Creating orthographic and 3D model drawings, we begin to visualize the final solution. Through design review, we verify the safety and design functionality to ensure the best arrangement for system equipment, operating requirements, space constraints, and observance of best practices.

Control and Automation

Precision control and data gathering can be managed through system HMI screens configured according to your operating requirements. Closed circuit video feeds allow monitoring of the test area away from potential hazards during test operation.

OEM Supplier to Turnkey Construction

Your requirements define our role. We can provide equipment and services as an OEM supplier, a contributing vendor, a project management team, general or specialized engineering support, or a complete solution as a turn-key contractor providing on-site construction. As your single point of contact, we handle every aspect of your project from design and development to manufacturing and implementation.

Premium Support

We provide repair, retrofit, and replacement options for a wide range of industrial equipment, servicing most manufacturers' components whether integrated by Quad Plus or others. Your existing test facility may not need replacement if economical service options offer an economic alternative.



Large Pump Test Stand Technical Capabilities

High pressure pumping is a major operation for petroleum well completion services. Pump manufacturers and repair service providers look to the following facilities to create controlled and repeatable tests to verify their products.

Electrically Activated Choke

The adjustable choke allows for testing under a range of pressures due to adjustable flow restrictions. Electric operation allows remote control with fewer points for maintenance, more precise adjustment including a range from 150 psi to 15,000 psi, better resistance to washout damage, and reduced piping cost.

Data Acquisition for Analysis

Configured according to customer requirements, data captured during test stand operations can provide documentation of each single unit tested and a collection of data for predictive analysis of multiple units over a production run. In addition, operational data of the test stand can offer opportunities for monitoring and analysis for asset predictive maintenance periods.

Blast Resist Cell Enclosure

Quad Plus recommends that large equipment tests facilities incorporate hardened or blast resistant enclosures for protection of equipment and personnel in the event of a catastrophic test failure. Units under large stresses can result in rapid discharge of pressurized fluids, toxic fumes and shrapnel depending on the magnitude of the test.

Flow Loops and Mechanical Load Systems

Test requirements can include multiple flow loops or mechanical load systems to simulate operating conditions for component research or verification testing.

Mobile Equipment Test Cells

Cells for component level and installed products differ by the space and the support connections required. Mobile Equipment Test cells must account for resources that may be supplied by auxiliary equipment providing lubrication, cooling, and control systems under operation in the field. Such requirements must be defined early in the design stage to assure availability of the correct resources for the variety of equipment projected for testing. This includes the test cell's location in relation to engine exhaust remediation during tests.

Testing of electrically-powered systems can require MV and/ or LV power feeds of substantial capacity to support operating power requirements for mobile equipment such as E-Frac systems. Capacity of the power feeds can be provisioned according to the type of testing to be completed within the test cell.

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