



Aircraft component OEMs, MRO facilities and operators depend on Testek Solutions for highly reliable aerospace test equipment to certify hydraulics, power generation, avionics, fuel, lube, actuator, and pneumatic components. With a 50-year track record of success, Testek uniquely holds long-term OEM partnerships, provides the industry's leading equipment warranty, and support from a dedicated worldwide team.

We are actively seeking a **Mechanical Control Engineer** and the sky is the limit with Testek Solutions! Work with a worldwide dedicated team to design multifunctional test equipment from concept to the final production.

### **Job Responsibilities:**

- Design multifunctional test equipment from concept to the final production drawings release, support assembly, start up, commissioning, and provide customer technical support
- Identify equipment requirements from customer technical specifications and tested component maintenance manual
- Create 3D model and layout drawings of conceptual design for technical proposal, conduct feasibility study if required
- Develop complete design of the project mechanical content that may include: stationary and portable enclosure fabrication, bases, risers, holding and support fixtures, mounting adapters, shafts, gears, various mechanisms, hydraulic manifolds, hydraulic and pneumatic piping, etc.
- Perform engineering calculations to prove the design meets functionality and safety requirements
- Select all purchased components used in design, work with suppliers to quote and customize their product if required
- Perform component packaging design to optimize internal layout of hydraulic and electrical cabinets and modules
- Create assembly drawings and detailed drawings of all fabricated and machined parts using professional knowledge of material availability and manufacturing cost
- Work with BOM system to file and release fabrication and all purchased components
- Support shop personnel at machine assembly stage of the project, troubleshoot problems and make design improvements
- Facilitate communication with customer during design review meetings providing technical expertise
- Work in cross functional project team, support hydraulic, electrical, and software engineers assigned to the project answering all mechanical engineering related questions
- Assist Technical Writer with content for equipment technical manual
- Organize, plan, and prioritize work efficiently in order to meet project schedule milestones
- Participate in test equipment start up and check out process at the factory and at customer site
- Travel expectations: less than 5% of the time, domestic and abroad

## Requirements:

- Bachelor's degree in Mechanical Engineering preferred - Associate degree plus 10 years of work experience considered equivalent
- Minimum of 5 years as Mechanical Engineer required
- Minimum 5 years of hands-on experience in mechanical design using SolidWorks and AutoCAD
- Understanding of control systems, including PLC/PC controllers and industrial networks such as Ethernet, Profibus, motor control systems, servo drives, frequency drives, and electrical distribution systems.
- SolidWorks Professional certification is a plus
- Fixture, tooling, and assembly automation design experience is preferred. Product design and component packaging design experience will be considered
- Working knowledge of GD&T and tolerance stack-up required
- **Must be a US citizen or US green card holder**

## Additional Skills:

- Experience with component selection for hydraulic and pneumatic systems, ability to read and understand hydraulic schematic
- Basic knowledge in the field of electrical engineering, ability to understand electrical schematic, experience with sensors and data acquisition
- Experience in design of gears and industrial gearboxes, specifically high RPM increasers
- PLC programming skills, knowledge of LabVIEW software

Testek Solutions requires all new hires submit and pass a pre-employment drug screen, credit check (when applicable), and background check prior to beginning employment.

Testek Solutions is an affirmative action and equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, disability, age, sexual orientation, gender identity, national origin, veteran status, height, weight, genetic information, or any other classification protected by federal, state, or local law. Testek Solutions is committed to providing access, equal opportunity and reasonable accommodation for individuals with disabilities in employment, its services, programs, and activities. To request reasonable accommodation, contact the Testek HR Department at 248-573-4980 or email [hrdept@testek.com](mailto:hrdept@testek.com)