

## **Mechanical Design Engineer**

AVANTech Incorporated, a rapidly growing technology company with extensive experience in the design, fabrication, and operation of water and wet waste treatment equipment for government and commercial clients, is seeking a creative, results-oriented **Mechanical Design Engineer** interested in joining our team in **Columbia, SC**. AVANTech's diverse product portfolio includes traditional water treatment systems as well as specialized systems for selective removal of radioactivity, boric acid purification, and various contaminant of concern applications. The company also has extensive experience in the design and fabrication of modular systems.

The **Mechanical Design Engineer** will be responsible for working on all product stages from research and development to design and manufacture through to installation and final commission. The goal is to design and fabricate mechanical components of innovation and excellence. This will include the design of skid based systems, piping, and vessels including completion of piping and instrumentation diagrams (P&IDs) using AutoCad, CREO, and technical drawings and checking technical drawings to verify accuracy. Candidates will also prepare seismic and structural calculations and Bills of Materials.

This job provides an excellent opportunity to learn about the design of water treatment systems with a company that uses the latest technologies in the field of water treatment.

### Key Responsibilities Include:

- Provide technical support to external and internal customers
- Resolve operational problems related to projects and minimize delays or unexpected cost increases
- Responsible for project success whether project leader or part of a project team
- Design systems and components that meet needs and requirements
- Produce 3D designs and fabrication drawings
- Alter and modify designs to meet requirements and to eliminate malfunctions

### Engineering Specific Technical Skills:

- Capable of critical thinking, long-term system planning, design, and analysis to ensure success of projects
- Ability to analyze project requirements and perform technical calculations supporting design including hydraulic, flow, pressure, structure, and seismic
- Create and finalize designs to meet project requirements
- Create accurate Bill of Materials

- Ability to read P&IDs and PFDs
- Conduct cost and time estimation
- Ability to size pumps, valves, instruments
- Requirements management, tolerance, and statistical analysis
- Mechanical design of customized solutions including piping skids and ASME vessels

Qualifications:

- Bachelor of Science Degree in Mechanical Engineering
- Entry level to two (2) years' related job experience
- Innovative with strong analytical problem solving and concept design skills
- CAD expertise in a 3D software program (preferably CREO)
- Adaptability to changing project requirements and schedules
- Critical thinking with exceptional problem-solving skills, able to work independently or in a team environment.
- Proactive, resourceful, and highly motivated with excellent verbal and written communication skills and the ability to work in high output environment
- Excellent interpersonal skills necessary to effectively communicate and work with clients
- Ability to develop and maintain strong customer relationships, impacting company sales and profitability

At AVANTech, we are energetic and passionate about what we do. We seek qualified candidates who share our vision, values, and commitment to superior customer service to both our internal customers as well as our external customers.

The successful candidate must be able to pass drug test. A high level of safe working practices and procedural awareness is necessary.

To apply send resume, cover letter, and salary history to:

AVANTech Incorporated  
2050 American Italian Way  
Columbia, SC 29209  
Attn: Human Resources

or e-mail: [dgrant@avantechinc.com](mailto:dgrant@avantechinc.com)

**AVANTech Incorporated is an Affirmative Action/Equal Opportunity Employer**