



JOB POSTING

Job Title:	HVAC Systems Design Engineer	FLSA Classification:	Exempt
Department:	Engineering	Reports To:	Director of Engineering
Apply:	hr@airinnovations.com	Compensation:	Depends on Experience

At Air Innovations, we maintain a dedicated Research and Development department to create, test, and validate our engineered solutions. We continually strive for innovative solutions to customers' problems – that's why nearly ¼ of our staff hold engineering degrees. We offer competitive pay, great benefits, and a team atmosphere.

Benefits for Full-Time Employees Include:

- Medical, Dental, and Vision Plans
- HSA and FSA company match with enrollment in a qualified plan
- Simple IRA with company match
- Company Paid Life Insurance and Long-Term Disability
- Supplemental Short and Long-Term Disability
- Paid Vacation, Personal Leave, and Sick Leave
- Paid Holidays
- Annual Safety Shoe Allowance
- Employee Referral Bonus
- Educational Assistance

Job Summary:

New product development:

Take design concept of prospective product and turn it into a manufacturable product. Generate all design documentation that defines and supports how the prototype and/or final product are to be built. Support in building and testing of prototype and/or final product in order to validate the concept and/or function of the product meets Deliverables. Use results of prototype/final product testing to make any changes necessary to meet all design objectives of product. Revise engineering documents to reflect these changes.

Sustaining Engineering:

Support all required aspects of existing product enhancement, from improving build process efficiency, cost reduction alternatives, reliability improvements, and customer and service support. This also entails Sales support tasks from a technical standpoint.

Essential Job Duties and Responsibilities: (Additional duties may be assigned)

- Prepare engineering documentation for all projects such as Electrical schematics, P&ID (Process & Instrumentation diagram), BOM's (Bill of Materials), Design assumptions, MS (Mechanical Schedule), SOO (Sequence of Operation), etc.
- Perform thermodynamic modeling on refrigeration systems for new products for the purpose of selecting refrigeration components used to build these products. Components specified include: Compressors, heat transfer coils, refrigeration system components (such as expansion device, receiver, filter-drier, etc.), air moving components, such as motors, fans, impellers, etc.
- Research and analyze data such as client design proposals, specifications, and manuals to determine feasibility of design or application.
- Evaluate field installations and applications and recommend design modifications required to eliminate/correct machine or system malfunctions.
- Assist test engineer during testing phase on prototypes of new products.
- Collaborate with manufacturing to revise design of products and parts used in the building of these products so as to improve cycle time and product cost.
- Meet with vendors to discuss improvements and updates to their product lines for the purpose of keeping up to date with new technology.
- Participate in engineering meetings and meetings with other departments as needed to discuss how to best introduce new products into manufacturing and also meet cost targets for these products.
- Perform thermodynamic on products so that the output data can be used to generate rating tables used in product manuals.
- Attend on and offsite technical seminars for the purpose of keeping up to date with current HVAC technology.

Education and Experience:

- Bachelor's degree in mechanical or design engineering required.
- Five to eight years related experience including design of HVAC mechanical systems and electrical circuitry.
- Ability to design heat transfer coils for the applications: i.e. circuiting, rows, diameter, fpi, etc.
- Proficient personal computer skills using AutoCAD, Solidworks, Microsoft Excel and Word. Ability to work with various supplier's design software to specify system components.

Special Requirements:

- Occasional after hours and weekend work required during product testing, and/or to meet design milestones.
- Occasional travel locally, nationally, and internationally including overnights and weekends.

Knowledge, Skills, and Abilities:

- Ability to design components and fixturing on CAD/CAM and 3D Modeling is a plus.
- Sound knowledge and understanding of different manufacturing processes and materials.
- Proven ability to read, understand and generate complex engineering drawings and technical instructions or manuals.
- Must be able to generate and explain detailed schedules, performance and design objectives.
- Demonstrated ability to operate manual machine tools, small hand tools, power tools and test/inspection equipment;
- Excellent attention to detail.
- Ability to communicate verbally and in writing.
- Must be able to work beyond normal or scheduled work hours as needed.

Physical and Mental Requirements:

- High mental and visual attention required for planning difficult work methods and sequences to obtain size, shape, or physical qualities of product. Ex. Analysis of vapor compression systems through use of computer and test laboratory.
- Ability to stand, walk, talk, hear, use hands to finger, grasp, handle, or feel, push, pull, reach, crouch, kneel, crawl, or bend, and perform repetitive motions with hands and/or wrists.
- Ability to exert up to 40 pounds of force occasionally, and/or up to 10 pounds of force frequently to move equipment in the test lab
- Required to use safety glasses, hearing protection, and gloves while performing specific tasks.

Work Environment:

Work is mainly performed inside in both an office and manufacturing environment. Exposure to occupational hazards such as moving mechanical parts and loud noises.

Air Innovations is an EEO employer and does not unlawfully discriminate on the basis of a person's race, religion, creed, color, sex, age, national origin, disability, sexual orientation, gender identity, marital or family status, pregnancy, military status, veteran status, predisposing genetic characteristics or carrier status, arrest or conviction record, domestic violence victim status, or any other legally protected class or status