



JOB TITLE: DESIGN ENGINEER (FULL-TIME)  
REPORTS TO: MOTION SYSTEMS PROGRAM MANAGER  
FLSA STATUS: EXEMPT  
PREPARED DATE: SEPTEMBER 1, 2020

**SUMMARY:** Design Cold Spray Systems and supporting equipment such as, mechanical, structural and fluid transport features in support of company products. Assist experts in robotics and controls to integrate mechanical components into automated motion systems.

**QUALIFICATIONS:** To perform this job successfully, the individual must be able to perform each essential duty and responsibility in a safe and satisfactory manner. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**ESSENTIAL JOB FUNCTIONS:**

- Participate with project engineer in design projects
- Test and troubleshoot designs
- Work with engineering team preparing 3D models and drawings
- Create engineering release and change documentation that conforms to established engineering department practices
- Aid in machine component design
- Communicate with customers
- Complete system design and install
- Must be able to travel as required

Reasonable accommodations may be made to enable individuals with disabilities perform the essential functions. Other duties may be assigned

**SUPERVISORY RESPONSIBILITIES:**

None

**EDUCATION and EXPERIENCE:**

- Bachelor's degree in Mechanical Engineering required
- Knowledgeable with heat transfer, thermodynamics, stress analysis required
- Able to integrate mechanical drive elements into designs required
- Knowledgeable in numerical and finite elements analysis methods required
- Able to design, conduct analysis and familiar with fabrication methods utilizing metals, ceramics, plastics and composites required
- Skilled with 3D modeling software and familiar with manufacturing design records keeping required
- Background in vapor deposition, laser deposition, or other additive manufacturing processes desired
- Basic training with SolidWorks 3D CAD software preferred
- Familiar with air handling and dust control equipment desired
- Ability to communicate well with customers required

**LANGUAGE SKILLS:**

- Read and interpret documents in English such as safety rules, operating and maintenance instructions, and procedure manuals, newspapers, periodicals, journals, and manuals
- Able to develop, write, format, and communicate policy and procedure
- Write routine business and technical reports, correspondence, business letters, summaries, and reports in English using prescribed format, conform to all rules of punctuation, grammar, and style
- Ability to speak effectively in English before groups such as customers or employees

**COMPUTER SKILLS:**

- Microsoft Word, Power Point, and Excel at an advanced level
- Proficiency in CAD/CAM software highly desired
- Proficient in electronic forms of communication including email, web searching, and data organization

**REASONING ABILITY:**

- Apply common sense understanding to follow instructions furnished in written, oral, or diagram form.
- Use mathematical skills to interpret mechanical and metallurgical findings, financial information, and prepare budgets.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. While performing the duties of this job, the employee is regularly required to stand; walk; use hands to finger, handle, or feel; reach with hands and arms; stoop, kneel, crouch, or crawl; and talk or hear. The employee must regularly lift and/or move up to 10 pounds and frequently lift and/or move up to 50 pounds. The employee must be able to see differences in widths and lengths of lines such as those on graphs. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**ENVIRONMENTAL CONDITIONS:**

Inside: Protection from weather conditions but not necessarily from temperature changes. Much of the work will be done in a machine shop type environment with high noise levels, dust, and other hazards associated with machining work. A job is considered "inside" if the worker spends approximately 75 percent or more of the time inside.

**WORK ENVIRONMENT:**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

- Must be able to work effectively in a fast-paced environment, communicate well with others, effectively deal with technicians and customers, and accept constructive criticism.
- Must be able to change activity frequently and cope with interruptions.

**IMPORTANT NOTE:** Essential functions of this job are described under the headings above. The job requirements and features are subject to change from time to time due to the dynamic nature of the Company.

It is the policy of VRC Metal Systems not to discriminate or allow the harassment of employees or applicants on the basis of sex, gender identity, sexual orientation, race, color, religious creed, national origin, physical or mental disability, protected veteran status, or any other characteristic protected by law with regard to any employment practices, including recruitment, advertising, job application procedures, hiring, upgrading, training, promotion, transfer, compensation, job assignments, benefits and/or other terms, conditions, or privileges of employment, provided the individual is qualified, with or without reasonable accommodations, to perform the essential functions of the job. This policy applies to all jobs at the Company. The Company will continue to take affirmative action to ensure that individuals are employed, and that employees are treated during employment, without regard to their sex, gender identity, sexual orientation, race, physical or mental disability, protected veteran status, or any other characteristic protected by law in all employment practices.

Employees and applicants with disabilities and disabled veterans are encouraged to inform Human Resources if they need a reasonable accommodation to perform a job for which they are otherwise qualified. The Company makes, and will continue to make, reasonable accommodations to the known physical or mental limitations of an otherwise qualified applicant or employee to promote the employment of qualified individuals with disabilities and disabled veterans, unless such accommodations would impose an undue hardship on the operations of the Company's business.