

|                   |                                       |  |   |
|-------------------|---------------------------------------|--|---|
| <b>Job Title</b>  | CAD Designer/Machine Programmer       | <b>Date</b>                                | 7/1/2024  |
| <b>Department</b> | Engineering                           | <b>Manages Employees</b>                   | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No            |
| <b>Reports To</b> | Mechanical Design Engineering Manager | <b>FLSA Status (to be completed by HR)</b> | <input type="checkbox"/> Exempt<br><input checked="" type="checkbox"/> Non-Exempt |
| <b>Revision</b>   | A                                     |  |   |

**Summary (Main Purpose)**

Apply practical knowledge to support the design and manufacture of a variety of products (lighting cabinets, panelboards, switchboards, switchgear, control panels, precision fabricated metal parts, etc.). Develop detailed mechanical drawings and programming of States MFG. machinery. Keep a working knowledge of States MFG. fabrication methods, machinery, and programming software to improve products and processes.

**Job Duties and Responsibilities (Essential Functions)**

- Develop/create detailed part drawings based on CAD drawings, customer drawings, and/or verbal instructions.
- Create, edit, and keep up-to-date CAD drawings and material/part lists.
- Assist in the design of equipment from the ground up utilizing 3D modeling software to meet customer's requirements while adhering to latest codes and standards.
- Maintain working knowledge of States MFG. laser, turret, press brakes, etc. and associated machine programming software to aid in product improvement.
- Assist/develop/create machine programs based on CAD drawings.
- Develop and maintain effective working relationships with shop employees to promote feedback to drive product improvement.
- Projects a positive, professional image of the company in all communications with customers, vendors and suppliers.
- Make recommendations to management on manufacturing processes to promote lean manufacturing.

**Required Skills and Experience (Minimum requirements in terms of educational background, work experience, licenses/certifications or other knowledge, skills, and abilities).**

- 3-5 years of related experience or recent Technical School graduate.
- Experience with CAD (SolidWorks, AutoCAD) software is required.
- Superior problem solving, project management and analytical skills.

**Additional Skills and Experience (Preferred or helpful)**

- Experience in sheet metal manufacturing and design concepts.
- Ability to work in a team environment to accomplish daily tasks.
- Working knowledge of Microsoft Office products, including Outlook, Excel, Word, PowerPoint.
- Demonstrated ability to work independently making sound design decisions for a week at a time.

*This description covers the primary purpose and principal duties of the job. It is not designed to be a complete list of all the duties and responsibilities required of this position. Duties, responsibilities, and activities may change at any time with or without notice.*

## Demands and Conditions Analysis: CAD Designer/Machine Programmer

### Working Conditions

The essential functions of this job involve the following working conditions.

(Place an "x" in the appropriate box.)

- C = Continuously** 75%-100% of time
- F = Frequently** 50%-74% of time
- O = Occasionally** 10%-49% of time
- R = Rarely** 1%-9% of time
- N = Never** 0% of time

|                             | C | F | O | R | N |                               | C | F | O | R | N |
|-----------------------------|---|---|---|---|---|-------------------------------|---|---|---|---|---|
| <b>Environmental</b>        |   |   |   |   |   | <b>Physical Factors</b>       |   |   |   |   |   |
| Works alone                 |   |   | X |   |   | Sitting                       |   |   | X |   |   |
| Works with others           |   |   | X |   |   | Standing                      | X |   |   |   |   |
| Customer contact            |   |   |   |   | X | Walking                       |   | X |   |   |   |
| Shift Work                  | X |   |   |   |   | Bending/stooping              |   | X |   |   |   |
| Extended Day                |   |   | X |   |   | Squatting/Kneeling            |   | X |   |   |   |
| Keeping work pace/deadlines | X |   |   |   |   | Crouching/Crawling            |   |   | X |   |   |
| Performing repetitive tasks | X |   |   |   |   | Twisting at waist             |   | X |   |   |   |
| Noise (decibels) 91         |   |   |   |   | X | Reaching above shoulders      |   |   | X |   |   |
| Vibration                   |   |   | X |   |   | Reaching below knees          |   |   |   | X |   |
| Abrupt temperature changes  |   |   |   |   | X | Lift/carry up to 40 lbs.      |   | X |   |   |   |
| Heat (above 85 F)           |   |   | X |   |   | Push/pull to 100 (force)      |   |   | X |   |   |
| Cold (below 65 F)           |   |   |   |   | X | Climbing ladders              |   |   | X |   |   |
| Wetness                     |   |   |   |   | X | Climbing stairs               |   |   |   |   | X |
| Dampness                    |   |   |   |   | X | Sweeping/mopping              |   |   |   | X |   |
| Dryness                     |   |   |   |   | X | Operating foot controls       |   |   |   |   | X |
| Odors & dusts               |   |   |   | X |   | <b>Manual Tasks</b>           |   |   |   |   |   |
| Work with solvents          |   |   |   |   | X | Grasping with one hand        | X |   |   |   |   |
| Work acids, bases           |   |   |   |   | X | Grasping with both hands      | X |   |   |   |   |
| Work with oils              |   |   |   |   | X | Manipulating with one hand    | X |   |   |   |   |
| Work with toxins            |   |   |   |   | X | Manipulating with two hands   |   | X |   |   |   |
| Poor ventilation            |   |   |   |   | X | Handwritten communication     |   |   |   | X |   |
| Fumes                       |   |   |   |   | X | Using keyboard                |   |   |   | X |   |
| Mechanical hazards          |   |   | X |   |   | Using hand tools              | X |   |   |   |   |
| Electrical hazards          |   |   |   |   | X | Twisting/wringing             |   |   | X |   |   |
| <b>Sensory Tasks</b>        |   |   |   |   |   | Scrubbing/washing/polishing   |   |   |   | X |   |
| Seeing close (reading)      | X |   |   |   |   | Scraping                      |   |   |   | X |   |
| Seeing far (observation)    |   |   | X |   |   | <b>Equipment Operation</b>    |   |   |   |   |   |
| Peripheral vision           |   |   | X |   |   | Driving car / light truck     | X |   |   |   | X |
| Seeing colors               |   |   | X |   |   | Driving heavy truck / van     |   |   |   |   | X |
| Verbal communication        | X |   |   |   |   | Operating forklifts, stackers |   |   |   |   | X |
| Hearing speech              |   | X |   |   |   | Operating hoist equipment     |   |   | X |   |   |
| Hearing mechanical sounds   |   |   | X |   |   | Operating shop machinery      |   |   | X |   |   |
| Sensing odors               |   |   |   |   | X | Operating power tools         | X |   |   |   |   |
| Sensing by touch            |   |   |   |   | X | Operating torch               |   |   |   |   | X |