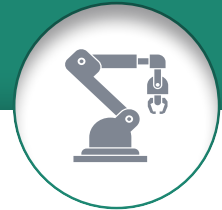


CAD Drafter

Advanced Manufacturing
Series



Company Overview:

<Please insert a short paragraph talking about your company and what makes it unique. Include details that capture the core values, culture, and mission of your company, so job seekers clearly understand the environment in which they will be working.>

Job Summary and Responsibilities:

Mechanical drafters prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information. Mechanical drafters are responsible for analyzing designs of the mechanical equipment and verifying mathematical calculations. Applicants must be able to create graphical representations of equipment and discuss mechanical designs with technical personnel and clients.

<Add any additional responsibilities or changes relevant to this role at your company.>

Required Competencies:

OCCUPATIONAL COMPETENCIES

- **Engineering Software:** Proficiency using modeling (e.g., MATLAB, Wonderware, AnSys) and computer-assisted design (e.g., AutoCAD, Mathead, SCADA) software
- **Computer Design (Architecture):** Ability to use 3D modeling and design programs (e.g., CAD Design, Pro/ENGINEER, CATIA), architectural and mechanical drafting and tool design
- **General Engineering:** Familiarity with processes in mechanical civil engineering, locomotive engineering, engineering supervision or currently an engineer in training
- **Machine Tools:** Competency using machine tools such as power grinders, milling cutters, drill presses, lathes, calipers, tool dies and, dial indicators
- **Engineering Activities:** Ability to perform engineering tasks, including overseeing, support design, and working on projects



FOUNDATIONAL COMPETENCIES

- **Complex Problem Solving:** Identify problems in the workplace, review relevant information and develop, and implement solutions where appropriate
 - **Mathematics:** Use mathematics to design drawings and specifications for mechanical equipment, dies, tools, and controls
 - **Monitoring:** Monitor and assess performance of yourself, other people, and organizations to make improvements, particularly in terms of quality-control analysis
 - **Critical Thinking:** Assess the strengths and weaknesses of various available solutions, conclusions, or approaches to resolve design or other problems
 - **Active Listening:** Give full attention to what people are saying, take time to understand the points being made, ask appropriate questions, and do not interrupt at inappropriate times
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Preferred Competencies:

OCCUPATIONAL COMPETENCIES

General Electrical Systems: Install, identify, and repair wiring, transformers and circuit breakers and able to use voltmeters, ammeters, and wiring diagrams

FOUNDATIONAL COMPETENCIES

Judgment and Decision-Making: Consider the costs and benefits of available options to choose the most appropriate one

Find additional competencies for this role using Skillful's occupation deep dive at www.skillful.com/employers.

Example Activities:

- Use computer-assisted drafting (CAD) equipment to develop detailed design drawings and specifications for mechanical equipment
- Reproduce drawings for reference manuals and technical publications to describe operation and maintenance of mechanical systems
- Lay out and draw schematic, orthographic, or angle views to depict functional relationship of components, assemblies, systems and machines
- Coordinate and consult with colleagues to design, detail components, and resolve design and other problems
- Review and analyze specifications, drawings, and other related data to assess factors affecting component designs; modify designs to correct operating issues or to reduce production problems
- Use computer-assisted equipment compute mathematical formulas to develop and design detailed specifications for components or machinery



Required Certifications:

<Note: Insert Required Certifications *but only if truly required.*>

Job Details:

- Location
- Department
- Job ID
- Classification
- Insert additional details of this position if applicable