

Membrane Process & Controls, Inc.

Job Description



Job title: Mechanical CAD Designer

Work Location: Edgar, WI – Main Office

Division/Department: Engineering

Reports to: Engineering Manager

Full-time

Part-time

Exempt

Nonexempt

Essential Duties and Responsibilities:

Technical drawings and design of mechanisms, components, structural framework, piping, and tanks to support equipment used in Food and Dairy production plants. Maintains MP&C's integrity, professionalism and profitability during project design and execution. The Mechanical CAD Designer must exhibit emotional composure, be detail-oriented, and have a willingness to work with many personality types and individuals of varying technical aptitude.

- Work under the direction of the assigned Project Manager and Engineering Manager to communicate with customers which occasionally will include travel to customers' facilities for meetings, collection of information, and taking accurate dimensional measurements for designs.
- Perform basic engineering calculations for volume sizes, venting of tanks, stress/deflections to size beams, weldments, and columns/legs for assigned projects under guidance of the Mechanical Engineer.
- Assist the Mechanical Engineer in specifying power transmission components (i.e. bearings, seals, conveyor drives, etc), as well as pumps, valves, heat exchangers etc. and prepare requisition forms so these components can be purchased.
- Design assemblies and parts using SolidWorks 3D software checking for interferences, motion, and proper part mating. Then generate 2D fabrication drawings with proper weld symbols, notes, dimensions, and tolerances per MPC Drafting Standards. These drawings may include: tanks, skidded piping systems, conveyor lines, shafts, frames, structural platforms, and other misc mechanical components.
- Ensure that contractual scope and specified requirements are being met by the mechanical design.
- Must be willing to communicate honestly with project manager/customers, in a timely manner, to address technical and schedule discrepancies.
- Maintain and create new parts for the MPC OEM standard parts library as required.
- Provide support to the fabrication department regarding drawing and parts information.
- Assist project manager and/or sales in obtaining drawing approvals and informational needs.
- Support Sales and Estimating Departments to provide preparation of pre bid concept and general arrangement drawings. Also assist with technical and cost evaluation of proposals on an as needed basis.
- Assist with drafting of Process and Instrumentation Diagrams (P&IDs), Process Flow Diagrams (PFDs), and general floor layout drawings using 2D AutoCAD when Process Engineers' workload is greater than the mechanical design department.
- Work with the Project Manager and Engineering Manager to resolve design discrepancies and/or warranty issues.
- Ability to travel approximately 3-5% of the time which will involve overnight stays. Mostly in the regional Midwest, but also includes other parts of the U.S. and occasional international locations. *Must be able to acquire a Passport.*
- Maintain compliance with all company policies and procedures.
- Must have a valid Driver's License.

Education and/or Work Experience Requirements:

- Excellent verbal and written communication skills, including ability to effectively communicate with internal personnel and external customers
- **High level** of computer proficiency (MS Office – Word, Excel and Outlook, SolidWorks 3D, AutoCAD 2D)
- Must be able to maintain composure when under pressure and work with a team to meet deadlines, while maintaining a positive, professional attitude and providing exemplary customer service.
- Ability to work independently and to carry out assignments to completion within parameters of instructions given, prescribed routines, and standard accepted practices. Must be a self-managing individual that will take ownership of assigned project.
- High school diploma or GED required
- AA, AS or Technical 2-year degree (3D CAD Design) or demonstrated equivalence in a previous job position.
- Some experience in machine and/or moving equipment design in sanitary food processing is helpful, but not required.

Physical Requirements:

- Ability to safely and successfully perform the essential job functions consistent with the ADA, FMLA and other federal, state and local standards, including meeting qualitative and/or quantitative productivity standards.
- Ability to maintain regular, punctual attendance consistent with the ADA, FMLA and other federal, state and local standards
- Must be able to sit for work at a desk
- Ability to walk, climb ladders, bend, lift and carry up to 40 pounds in an industrial plant.
- Must be able to talk, listen and speak clearly in person or via phone

Print Employee Name:

Employee signature:

Date: