

Mechanical Engineer / Pekin (area), IL

Full-time

1st Monday – Friday 7:00 am – 3:30 pm

Long hours, off-shift, and weekend work is always a possibility as a project dictates. ~15%

Travel is always a possibility through the project life-cycle (job scouting, site inspection, customer meetings, installation, etc.) ~20%

Manufacturing Maintenance Solutions, Inc. (MMS), is a manufacturing process support organization committed to 100% customer satisfaction. The members of the MMS team are highly engaged, skilled and customer focused. MMS offers its customers the highest quality work available and are devoted to providing customer satisfaction that is unmatched in our industry. We understand that personal development is important to our team members and our customers. We have made the commitment to ensure that the tools to continuously sharpen our skills, are available (through our Skills Training Department).

Overview of Position:

Manufacturing Maintenance Solutions (MMS) looking for Mechanical Engineer. MMS' engineering group undertakes a diverse range of projects, from machine design & build, to repair, rebuild, and retrofits of existing production assets. MMS' engineers must be able to rapidly acquire expertise in a wide variety of processes and applications, and produce creative solutions to challenging problems. Ability for hands-on approach with high degree of fluency with general shop practices.

Shop Practice:

- Basic fabrication practice – cut, weld, grind, layout
- Basic machine shop practice – Mill, turn, grind
- Precision measurement and calibration
- Fitting – Stone, Scrape, Lap
- Rigging – Rig loads, crib, skate
- Lifting – Use overhead hoist, mobile crane, fork-truck
- Machine repair practice – Precision level and alignment, Turcite, Moglice, Belzona

Required Skills & Qualities:

- A four-year Bachelor of Science degree in Engineering, or a two-year degree with extensive experience in Mechanical design solutions
- Designing process, assembly, and material handling equipment and tools
- Executing engineered projects from concept to commissioning, to after-sale support
 - MS Project competency, enter and track tasks and resources
 - Create presentations for sales and design approval
- Serving as consultant for service technicians during troubleshooting and repair
- Formulating and overseeing rebuild and repair plans for MMS' service and process maintenance groups
- Analyzing failures of existing equipment and designing retrofits to improve performance
 - MS Excel "power-user" advanced functions, equations, charts, goal seeking
 - Simulate/characterize performance of systems using Excel or other software tools

Required Skills & Qualities (cont.):

- Working knowledge of classical structural analysis methods
 - Simple static analysis, beam, axial, and shear stress and deflection computations
- Strong background in fluid power applications
- Design fluid power systems – select all components from actuators and piping, to power unit design.
- Basic Fluid Mechanics problem solving –
 - Bernoulli's equation
 - Pipe flow calculations – Gases & Liquids
 - Read & understand piping diagrams, P&ID's, flow sheets, etc.
 - Read & understand fluid power schematics, visually identify standard components, valve patterns, piping, etc.
- Basic instrumentation practices – understand function and application of common devices
- Fundamental Dynamics, linear MSD systems
- Basic FEA and CFD techniques
- Materials knowledge – Steel alloys, polymers, nickel super alloys
 - General fatigue calculations – Goodman curve and endurance limit
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- Basic conductive and convective heat transfer – Newton's law of cooling
- Identify and understand function of furnace and quench components
- Aware of OSHA/ISO/NFPA/RIA standards for machine guarding, work platforms, ladders, etc.
 - Stay abreast of industry practices for controls, automation, and safety
 - Familiarization with safety standards and risk assessment procedures is a plus.
- Effectively use Solidworks modeling or Pro/E, assembly, and drawing modules
- Must have a valid state driver's license, vehicle insurance and dependable vehicle
- Must be a U.S. citizen or permanent resident of U.S.

Responsibilities:

- Accountable for the equipment with which the employee works or has control over, as well as the need for observation of the process/product to minimize product loss.
- Responsible for any equipment requiring maintenance work.
- Responsible for maintaining accurate parts use records.
- Responsible for all materials and tools used on the job or special projects
- Responsible for maintaining product integrity.
- Responsible for company equipment.

Do you want to learn up-to-the-minute technology? Do challenges excite you? Are you interested in different experiences daily? Then joining our team is the choice to make. We offer competitive wages and benefits along with our extensive education and training program.