

KISHORE KUMAR

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Objective

Dynamic and results-driven Mechanical Design Engineer with a proven track record of success in quality engineering and mechanical design and documentation roles. Possessing strong technical expertise in mechanical engineering principles, design software, documents controlling and quality assurance processes. Seeking a challenging position where I can utilize my skills and experience in every possible way in any technical and documentation roles to contribute effectively to the success of the organization.

Experience

▲ Motherson Automotive Technologies & Engineering – Robis – JH Enterprises.

Jan 2025 – April 2025

Design Engineer with Documentation:

❖ QU2I INSH ASSEMBLY SPM FR & RR RH Fixture:

- ✓ This project involved designing a specialized fixture to facilitate the efficient and accurate assembly of the QU2I INSH components for the front and rear right-hand sides of a vehicle.
- ✓ Analyzing assembly requirements and optimizing fixture geometry for stability and accessibility.
- ✓ Selecting appropriate materials and components to ensure durability and precision.
- ✓ Creating detailed 3D modelling.
- ✓ Collaborating with Senior engineer teams to ensure seamless implementation.
- ✓ Worked on surface cutout of door handle surface component for fixture assembly.
- ✓ Prepared Technical Documents related to design for customer interaction and prepared manual to study the overall functioning of the machine.

❖ SMRC-CHENNAI-P1324 FR-RR DOOR TRIM USW FIXTURE LH-RH:

- ✓ This project required translating specific customer input into a functional and robust fixture design for the left and right-hand side front and rear door trim USW (Ultrasonic Welding) process.
- ✓ Thoroughly reviewing and interpreting customer specifications and design constraints.
- ✓ Developing a 3D model that accurately represented the fixture's geometry and functionality.
- ✓ Generating detailed 2D drawings with precise tolerances and specifications
- ✓ Collaborating with Senior engineer teams to ensure seamless implementation.
- ✓ Ensuring the design met all safety and ergonomic requirements.
- ✓ Implementing customer driven changes into the design.

▲ Al Ghanim Fencing Factory - Qatar.

OCT-2023 - Aug 2024

Design and Technical Engineer, Procurement & Estimation with Documentation:

***** Fencing System Design:

- ✓ Design and develop fencing systems according to client specifications, project requirements, and industry standards.
- ✓ Utilize engineering principles and CAD software to create detailed designs, layouts, and schematics for fencing components, including panels, posts, gates, and accessories.

***** Material Selection and Specification:

- ✓ Evaluate various materials for fencing construction, considering factors such as durability, strength, corrosion resistance, and cost-effectiveness.
- ✓ Specify appropriate materials and finishes for different fencing components based on environmental conditions, site requirements, and aesthetic preferences.

Project Management and Coordination:

- ✓ Coordinate with project teams, suppliers, subcontractors, and regulatory authorities to facilitate the successful execution of fencing projects, from planning and procurement to installation and completion.
- ✓ Manage project schedules, budgets, and resources effectively to meet project milestones, deadlines, and financial targets.

Documentation and Reporting:

- ✓ Prepare technical documentation, including drawings, specifications, manuals, and technical reports, to communicate design details, installation instructions, and maintenance guidelines.
- ✓ Maintain accurate records of project documentation, change orders, and as-built drawings for future reference and documentation purposes.

❖ Procurement and Estimation:

✓ Source materials, negotiate contracts, and manage vendors to ensure timely procurement at the best value.

▲ Larsen and Toubro Rubber Processing Machinery - India.

JULY-2021 - AUG-2023

Design Engineer:

Product Design and Development:

- ✓ Collaborate with cross-functional teams to conceptualize, design, and develop rubber processing machinery according to customer specifications and industry standards.
- ✓ Utilize CAD software (such as Creo and SolidWorks) to create detailed 3D models, drawings, and schematics for machine components and assemblies.

Design Analysis and Validation:

- ✓ Perform structural analysis and simulation using Finite Element Analysis (FEA) software to evaluate the performance and integrity of machine designs.
- ✓ Ensure that designs meet safety, reliability, and performance requirements through thorough analysis and testing.

Bill of Materials (BOM) Management:

- ✓ Create and maintain an accurate Bill of Materials (BOM) for each machine design, including all necessary components, materials, and quantities.
- ✓ Regularly update the BOM to reflect design changes, revisions, and improvements throughout the product development lifecycle.

Engineering Change Notice (ECN) and Engineering Change Request (ECR) Process:

- ✓ Initiate Engineering Change Requests (ECRs) to propose design modifications, improvements, or corrections based on feedback from manufacturing, quality, or customers.
- ✓ Evaluate the impact of proposed changes on product functionality, performance, cost, and schedule.
- ✓ Coordinate the review and approval process for ECNs, ensuring appropriate stakeholders are involved and informed.
- ✓ Implement approved engineering changes by updating design documentation, including drawings, specifications, and BOMs, and communicating changes to relevant teams.

Collaboration and Communication:

- ✓ Work closely with manufacturing, procurement, quality assurance, and other departments to ensure seamless integration of design changes and effective resolution of engineering issues.
- ✓ Communicate design requirements, specifications, and updates effectively to internal teams, suppliers, and customers.

Documentation and Reporting:

- ✓ Maintain accurate records of quality inspections, test results, and corrective actions taken, ensuring traceability and documentation of quality-related activities.
- ✓ Used Microsoft Office, Word and Excel to maintain every documents.
- ✓ Maintained and organized all technical documents including CAD files, BOMs, and reports.
- ✓ Ensured version control and document compliance with ISO standards.
- ✓ Coordinated with QA and production teams for documentation approval.

▲ Caparo Engineering India Private Limited.

JULY-2020 - JULY-2021

Quality Engineer:

A Quality Management System (QMS) Implementation:

- ✓ Establish and maintain a robust Quality Management System (QMS) specific to die-casting materials, ensuring compliance with industry standards (e.g., ISO 9001) and regulatory requirements.
- ✓ Develop and implement quality procedures, work instructions, and documentation controls to standardize processes and ensure consistency in material quality.

***** Material Inspection and Testing:

- ✓ Define and execute inspection plans and testing protocols for incoming raw materials, including aluminum, zinc, and other alloys used in die casting.
- ✓ Conduct visual inspections, dimensional measurements, and material property tests (e.g., tensile strength, hardness, microstructure) to verify material conformance and suitability for die casting processes.

Documentation and Reporting:

- ✓ Maintain accurate records of quality inspections, test results, and corrective actions taken, ensuring traceability and documentation of quality-related activities.
- ✓ Ensured version control and document compliance with ISO standards.
- ✓ Coordinated with QA and production teams for documentation approvals

Education

Course/Degree	School / University	Grade/ Score	Year
Bachelor of Mechanical Engineering	Anna University -Thanthai Periyar Govt.	6.5	2016-2020
12 th Grade – Higher School	SRV Boys Higher Secondary School	86%	2015-2016
10 th Grade – SSLC (State Board)	Don Bosco Matric.Higher.Sec.School	96%	2013-2014

Skills

- ▲ CAD/CAM Software Proficiency.
- ▲ 3D Modelling Software.
- ▲ Microsoft Office.
- ▲ AUTOCAD.
- ▲ Ansys analysis and simulation software.
- ▲ Microsoft Outlook
- ▲ Microsoft Excel.
- ▲ Microsoft PowerPoint.
- Management and Leadership
- ▲ Solid Edge-Siemens.
- ▲ Microsoft Word.

- ▲ Time Management.
- ▲ Communication skills in English.
- ▲ Product Development.
- ▲ Technical Documentation.
- ▲ Problem-Solving Skills.
- ▲ Project Management.
- ▲ Material Selection and Analysis.
- ▲ Quality Assurance/Quality Control (QA/QC).
- ▲ Collaboration and Teamwork.
- ▲ Innovation and Creativity.
- ▲ Continuous Learning and Adaptability.

Projects

❖ SMRC-CHENNAI-P1324 FR-RR DOOR TRIM USW FIXTURE LH-RH:

- ✓ My work on the SMRC-CHENNAI-P1324 FR-RR DOOR TRIM USW FIXTURE LH-RH project encompassed the entire design process, from initial conceptualization and 3D modeling to the creation of detailed 2D drawings.
- ✓ Compiled a comprehensive Design Approval Package (DAP) which contained, 3d models, tolerance information, and material specifications.
- ✓ Then presented DAP to the customer using PowerPoint, to ensure that all customer requirements were met, and that the design was clearly understood.

Design of Chain-link, Welded Mesh and Gabions:

- ✓ Proficient in AutoCAD for the design and drafting of chain link fence and welded mesh fence systems.
- ✓ Created detailed drawings and cross-sections of chain link fence and welded mesh fence components, including panels, posts, gates, and accessories, with precise dimensions and annotations.
- ✓ Customized fence designs based on client preferences, site-specific conditions, and regulatory requirements, using AutoCAD to incorporate design changes, revisions, and alternatives as needed.
- ✓ Conducted thorough quality checks and reviews of AutoCAD drawings to ensure accuracy, completeness, and compliance with design standards, codes, and specifications.
- ✓ Participated in design reviews and coordination meetings to address feedback, resolve issues, and optimize fence designs for performance, durability, and cost-effectiveness.
- ✓ Maintained organized documentation of AutoCAD drawings, revisions, and project files, facilitating efficient retrieval and reference for future projects, revisions, or audits.
- ✓ Prepared documentation packages, including drawings, specifications, and design reports, to communicate design intent and facilitate project documentation requirements.

❖ Design of Mixing Mill:

- ✓ Designed Parts in mill Project that is in contention with material and cost efficiency which is involved in every part of the machine.
- ✓ Drafted parts and assemblies with GD&T usage in Creo to make it simple so that the manufacturer can find it easy to understand.
- ✓ Analysis and Simulation done to the overall machine components to verify and test the final impact of the Parts.
- ✓ Prepare technical reports, presentations, and documentation to communicate design rationale, specifications, and outcomes to stakeholders and project teams.
- ✓ Collaborate with cross-functional teams, including mechanical engineers, electrical engineers, process engineers, and production staff, to integrate the mixing mill and green tire holder into the overall tire manufacturing process.
- ✓ Communicate design specifications, updates, and progress reports to stakeholders, ensuring alignment with project goals and objectives.
- ✓ Develop detailed engineering drawings, 3D models, and specifications for the mixing mill and green tire holder using CAD software (e.g., Creo, SolidWorks, AutoCAD).
- ✓ Specify components, materials, tolerances, and manufacturing processes based on design requirements and industry standards.
- ✓ Ensure compliance with safety regulations, ergonomic guidelines, and environmental standards in the design.

US -Project Piping MC-Neil:

- ✓ Designed all the piping modules by knowing the total length and width dimensions of the press where the piping modules should fix and accommodate with the main press machine.
- ✓ Developed detailed piping layouts, isometrics, and schematics for the MC-Neil US project using industry-standard CAD software such as Creo and AutoCAD.
- ✓ Specified piping materials, fittings, valves, and accessories, considering compatibility with process

- luids and environmental conditions.
- ✓ Optimized piping routes to minimize material usage, reduce pressure drop, improve flow distribution, and enhance accessibility for maintenance and operation, balancing design considerations with practical constraints.

Achievements & Awards

- ▲ Robotics Competition India Level Runners up from E-Yantra Robotics Competition IIT-Bombay.
- ▲ Runners up from 24hrs CAD design Competition.
- ▲ Winners in Football Competition in college.
- ▲ Winners in Cultural Competition in Dance.
- ▲ Best Striker and Man of the Tournament award in college.
- ▲ Second Place in the Triple Jump and 4x400 relay.

Interest

- ▲ Design Engineer
- ▲ Quality Engineer
- ▲ Document Management and Controller.
- **▲** Administration
- Management and Supervisor
- **▲** Computer
- ▲ Football and Sports

Dance and Extracurricular activities

Language

- ▲ English
- **▲** Tamil

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