

SUMMARY

Experienced Mechanical Engineer with a decade of expertise in engineering leadership, manufacturing engineering, product development, and process optimization. Seeking dynamic opportunities to apply innovative problem-solving skills. Passionate about continuous improvement, quality assurance, and mentoring engineering teams to drive excellence.

EXPERTISE

- Product Innovation & PLM
- VAVE-Product/Project Optimization
- Engineering Leadership & Team Mgmt.
- HVAC/Thermal Mgmt.
- FMEA – Design & Process
- ERP - Oracle NetSuite & TGI
- ISO9001/ASPICE
- SolidWorks, Inventor, Vault
- MS Projects, Smartsheet

EXPERIENCE

Engineering Manager

03/2024 to Current
Warren, MI

Jomar Valve (Manufacturer & Distributor: Plumbing, Industrial and HVAC components)

- Manage the workflow of the Quality and Engineering Department.
- Establish, implement, and maintain administrative policies and procedures for the department.
- Develop goals & objectives for team members and manage departmental duties and priorities.
- Utilize Smartsheet – Project Management and tracking tool for managing engineering road maps.
- Identify, develop & deliver innovative solutions in alignment with the product development road map.
- Utilize TGI – ERP system for product data management.
- Drive technical requirements in the new product launch along with certification requirements and accuracies.
- Coordinate with vendors and R&D on the introduction of new products and standards.
- Work with **UL, CSA, FM, IAPMO & Truesdale** for testing & certifications of new products and current products.
- Develop and maintain Technical Docs, Spec sheets, IO&Ms & CAD Library for publishing.
- Monitor the quality inspection processes and oversee the returns and quality claims.
- Drive continuous improvement of plant engineering standards and work processes.
- Manage the on-going engineering reviews, analysis, problem solving & trouble-shooting the plant equipment.
- Serve as quality assurance resource for root-cause resolution & Develop 8D corrective action plans.
- ❖ **EcoVadis**: Manage **ESG** risk & compliance, meet **Sustainability** goals, Improve performance thorough sustainability.
- ❖ Executed 4 successful product launches for an extensive valve family providing end-to-end solutions for customers.
- ❖ Developed optimized designs for **Patented Product – Add a Valve**.
- ❖ **ISO9001**: Lead the certification process, Establish the standards & develop the QMS with related documentation.
- ❖ Ensuring **ASPICE** compliance with the Hydronic, HVAC & Actuation requirements for the customers (OEM Tier 1)
- ❖ Support customer (OEM Tier 1) **APQP** process for components deliverables to ensure the Milestones & KPIs.

Sr. Mechanical Engineer

04/2023 to 03/2024
Fenton, MI

Miller Industries – Flex Air Division (Manufacturer: Custom Air Handling Unit/HVAC Units)

- Lead mechanical design efforts for **MEP projects**, including HVAC, plumbing, and fire protection systems.
- Created/modified the 3D and 2D CAD data, submittal packages, product documents and bill of materials while meeting the intent of the customers' design requirements.
- Performed load calculations, system sizing, and analysis for HVAC and plumbing systems.
- Ensured all the designs meet relevant codes, standards (**ASHRAE, NEC, local regulations**), and sustainability goals.
- Familiarity with energy modeling and sustainable design practices – **LEED / WELL** compliance.
- Assured product quality and function by designing and modifying equipment for building and assembling electrical components, soliciting observations from operators.
- Assisted in the manufacturing of products and process optimization.
- Maintained relevant customer information, program milestones and updated ECN in the PLM system.
- Reviewed and recommended appropriate equipment and systems for new capital projects and existing installations to ensure that they comply with known safety best practices, applicable codes, and standards.
- Provided technical support and leadership to teams with members involving operations management, maintenance, and engineering to achieve manufacturing excellence.
- Ensured that all legal and regulated obligations (i.e., OSHA, building codes) from an Engineering and Design standpoint meet all federal, state, or local laws and regulations – **COMPS Check**.
- ❖ Project lead for the efficient and innovative Modular Air handling Units for Microsoft and Google Data Centers.

Product Development Engineer III - Employee of the year'20**04/2020 to 04/2023****Airmaster Fan Company - MAICO (Manufacturer: Ind. & Comm. Ventilation/Air Circulation Products)****Clarklake, MI**

- Managed the Engineering Department with Project R&D along with team development & coaching: four direct reports.
- Responsible for NPI, Product Lifecycle Management, and managing internal as well as external projects.
- Utilized SolidWorks & AutoCAD 3D/2D modeling to develop complex product assemblies, tooling, and fixture designs.
- Monitored Engineering Road Map KPIs for new/running projects and plan for new product developments.
- Lead cross-functional teams and maintain DFMEAs, DVP&Rs, RCAs along with QMS documentation.
- Prepared product packages including system scopes of the work description, process flow diagrams, sequence of operations, detailed fabrication drawings, and specifications for new product launch.
- Lead the development of the process flow including assembly equipment, quality checks, work instructions, control plans, EOL testing, and functional/durability testing as needed.
- Multi-stakeholder alignment - partners with Service, R&D, Global Operations, Quality, Marketing, and Sales to develop new products & projects. (MAICO - North America, Europe, Gulf & China).
- ❖ Represented company for AMCA - Air Movement and Control Association International, Inc. and served as liaison for various projects and proposals in association with HVAC industry.
- ❖ High ROI (µ7.3%) Project: Proved & Lead the conceptualizing, designing & development of a custom 72" X160" 'FO LASER Cutting Machine' in collaboration with Local Vendors. 62% efficiency gain in manufacturing.
- ❖ Designed critical assembly components and developed manufacturing processes for outsourced parts further to save \$375,000 annual procurement and outsourcing costs for the product family.
- ❖ Optimized packaging designs for cost savings along with reduced assembly time and precise inventory management. Firsthand with sheet metal fabrication, injection molding, packaging designs, & motor-driven mechanisms.
- ❖ COVID Research: Researched & published importance of air ventilation in enclosed spaces like hospitals, colleges.
- ❖ **Dairy Industry NPD:** Researched & published importance of cool air for low body temperatures for cows, to aid maximum milk production.

Design & Manufacturing Engineer**09/2017 to 04/2020****SRC Refrigeration Inc. (Manufacturer: Custom Walk-in Coolers/Freezers, Growler Stations)****Sterling Heights, MI**

- Created 3D conceptual designs of walk-in / display coolers & freezers, & Beer Growlers using Autodesk Inventor.
- Prepared mechanical engineering designs & sketches including layout & conceptual design using AutoCAD.
- Assisted with the strategic conversion from AutoCAD 2D into 3D using Inventor / SolidWorks modeling.
- Designed HVAC System flow charts and PID's for custom built projects along with heat load calculations.
- Created product models & drawings using Datum Selection & GD&T methodology along with stack-up analysis.
- Performed HVAC load calculations for cooling systems, ventilation systems, fans, air make-up units, and associated ductwork regarding static losses, heat load, downdraft requirements, and systems effects.
- ❖ Lead Engineering team with VAVE initiative projects to ensure process/material flow & reduce scrap and waste.
- ❖ NPD of a replacement heavy-duty door with 100+ units of early sales, generating \$150,000 in annual sales revenue.
- ❖ Project Manager for the Tended Bar sponsored by Shark Tank and Mr. Mark Cuban.
- ❖ Optimized the panel connection profile & introduced a new cam-lock mechanism to reduce cooling losses by 27%.

Manufacturing Process Engineer**07/2014 to 07/2015****S.S. Industries (Manufacturer: Screen Printing Machines)****Nashik, MH**

- Implemented improvement activities including tools like SPC, Root Cause Analysis, 5S to control product quality.
- Optimized process by utilizing improvement tools including Lean Manufacturing & Six Sigma, DFM & DFA.
- Lead resolving assembly related concerns by reducing variability & utilizing lean mfg. initiatives to mitigate problems.
- Supported ISO 9001 compliance and supported internal ISO auditing and compliance as required.
- CAD based modeling enhances existing designs and develops custom designs of components and subsystems.
- Experience working with metal/sheet rolling, stamping, welding, CNC coding, fabrication & machining processes.

EDUCATION**MBA – Strategy & Operations.**

Robert W. Plaster Graduate School of Business – GPA: 4.00

01/2023 – 08/2025

Williamsburg, Kentucky

Project Management (MPM)

University of the Columbians – GPA: 4.00

08/2020 - 04/2022

Williamsburg, Kentucky

MS. Mechanical Engineering

Texas A&M University – GPA: 3.66

08/2015 - 08/2017

Kingsville, Texas

BE – Mechanical Engineering

University of the Pune – GPA: 3.50

08/2010 – 05/2014

Nashik, MH, India