

Karankumar Rathod

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SUMMARY

- With 5+ years' experience in aerospace and automotive manufacturing, excel in project coordination, product development, engineering design, CNC programming, continuous improvement, and PPAP, including PFMEA and process control, ensuring an optimized working environment with a focus on quality control.
- Skilled in industry-related standards like ISO 9001, QS9000, and AS9100 for compliance and quality assurance, with strong technical writing and documentation skills, including managing revisions and conveying technical information to engineers and operators with a customer focus. Proficient in developing detailed work instructions and designing fixtures to support production.

WORK EXPERIENCE

Project Engineer - Ford 8F Gear Project, LINAMAR Corp.

Feb 2023 - Present

- Led engineering design and customer collaboration, ensuring process control, DFMEA integration, and adherence to specifications through strategic project execution, focusing on Quality Control.
- Implemented strategic project plans for the launch of production lines (PPAP), contributing to a 15% reduction in setup time and enhancing overall productivity through effective Time Management.
- Reduced scrap rates from **2.4% to 0.57%**, improving quality and achieving significant cost savings via lean manufacturing practices.
- Delivered **\$500K+ annual cost savings** by optimizing processes, tooling, and waste reduction, incorporating Process Engineering principles. Reduced Consumables by 4 % for production.
- Developed robust **process flows, PFMEAs, control plans**, and technical documentation, including injection molding considerations and fixtures design.
- Oversaw development and launch of new and existing products, managing engineering changes, capital projects, and ensuring mass production readiness with a focus on Assembly processes.
- Directed prototype trials and tooling coordination, ensuring alignment with customer engineering and timeline adherence, utilizing Solid Modeling techniques.
- Tracked program status, delegated tasks, and ensured on-time delivery through effective cross-functional collaboration.
- Supported production planning, tooling availability, documentation, ECR processes, and statistical analysis for continuous improvement, incorporating ISO 9001 standards.
- Improved **plant layout and ergonomics** using value stream mapping and aligning with engineering design standards, enhancing Pre-Production processes.
- Acted as liaison with suppliers and customers to define engineering requirements, support capital procurement, and deliver technical presentations, focusing on Nuclear components.

Manufacturing Engineer, LINAMAR Corp.

Dec 2021 - Jan 2023

- Developed and optimized manufacturing processes for engine, transmission, and gear parts, integrating CNC programming (Mastercam/CIMCO) and lean principles, with an emphasis on Metal Fabrication.
- Designed workholding using SolidWork, control plans, PFMEAs, and quality documentation in compliance with ISO 9001 and QS9000 standards, incorporating Test Procedures.
- Led new project launches, collaborating with applications engineering and creating operator work instructions, ensuring Process Engineering integration.
- Conducted time studies and root cause analyses to improve OEE and reduce cycle times on mills and lathes, focusing on Heat Treatment processes.
- Implemented machine matrix systems and preventive maintenance plans to boost uptime and process reliability, supporting Quality Control initiatives.
- Trained personnel on machine setup/operation and maintained ERP-based maintenance scheduling, incorporating effective Time Management strategies.
- Facilitated APQP meetings, resolved issues, and drove continuous improvement initiatives.
- Supported backlog prioritization and smooth PI planning for system-level product releases.

Cnc Programmer - Aerospace, Camatech Inc.

May 2019 - Nov 2021

- Set up CNC machines using vices, vacuum tables, and custom fixtures to ensure machining accuracy and process control.
- Created precision CNC programs using HyperMill, Mastercam, and CIMCO, achieving tolerances as tight as 10 microns.
- Machined a variety of materials including 15-5PH steel, 6061-T6 aluminum, titanium, and various stainless steels (heat-treated and non-treated), focusing on precision machining of components.
- Collaborated with engineers, technicians, and quality teams to optimize setups, resolve issues, and align with process documentation, emphasizing Nuclear-grade material considerations.
- Maintained daily production logs and reports to support traceability and continuous improvement.

EDUCATION

CONESTOGA COLLEGE - Mechanical Technician, MECHANICAL TECHNICIAN

2016 - 2019

SKILLS & INTERESTS

Relevant Skills	: Assembly, Quality Control, Nuclear Engineering, Metal Fabrication, ISO 9001, Continuous Improvement, GD & T, CNC Programming
Engineering Skills	: PPAP, PFEMA, Manufacturing process development, CNC Programing, SolidWorks, AutoCAD, GD &T, Customer Quality, Manufacturing Engineering, Fixture Design, Production Processes, FMEA
Project Management	: Project and Supplier management, Cross-functional team leadership, Continues Improvement, APQP, Production Line, Statistical Analysis, Kaizen, Cost Reduction, Control Plan, ISO 9001
Technical Proficiency	: Lean manufacturing, Design Custom tools, Machining, Troubleshooting, Grinding, CNC programming, Process Improvement
Interpersonal Skills	: Customer Relationship management, Disciplined and organized in social and work environments., Highly motivated with strong multitasking and communication skills
Analytical Skills	: Detail oriented with the ability to work in fast-paced environments., Excellent analytical skills to solve technical issues quickly, Problem Solving