

PROCESS ENGINEER

Lean Manufacturing | SPC | Continuous Improvement | Project Execution (PMP, CSSGB)

Manufacturing Engineer with 5+ years of experience bridging design engineering and scalable production in high-mix, regulated manufacturing environments. Proven track record supporting New Product Introduction (NPI), process development, and production ramp-up through Design for Manufacturing (DFM) collaboration, process validation (IQ/OQ/PQ), SPC, and data-driven problem solving. Hands-on engineer who thrives on the shop floor, translating complex engineering requirements into robust processes, standard work, and statistically controlled production systems.

PROFESSIONAL EXPERIENCE

Production Engineer | MJB Wood Group, Charlotte NC (Aug 2024 - Jan 2026)

- Partnered with Design, Quality, Test, and **Manufacturing teams to deliver DFM-driven**, production-ready processes.
- Operated as an **individual contributor**, owning **line balancing, work measurement, standard work, and continuous improvement** initiatives.
- Supported **New Product Introduction (NPI) and production ramp-up activities**, coordinating cross-functional efforts from initial process definition through production release.
- Owned process equipment **commissioning and validation activities (IQ/OQ/PQ) for CNC and panel saw installations**, ensuring production readiness and smooth integration into operations.
- Led cross functional problem-solving initiatives using **DMAIC, RCA, and CAPA**, resolving critical project risks and improving effective production output by **15%**.
- Applied **statistical process control (SPC) and capability analysis (Cpk/Ppk, control charts)** to identify variation, prioritize improvements, and stabilize processes.
- Developed and maintained project documentation, **SOPs**, and standard work to support scalable production launches, reducing operator variability and cutting training time by **30%**.
- Applied **DFMEA, PFMEA, and PPAP** to legacy and new processes, strengthening **risk control, audit readiness, and process stability**.
- Supported **ISO 9001 / IATF 16949** compliance, inspection checkpoints, and data-driven material disposition (release/rework/scrap).

Continuous Improvement Engineer | MJB Wood Group, Bristol IN (Apr 2023 - Aug 2024)

- Planned and executed cross functional improvement projects, managing scope, timelines, and stakeholder alignment to deliver **55% yield improvement and 25% waste reduction**.
- Supported multiple concurrent improvement initiatives across fabrication and assembly, coordinating priorities with Production, Quality, and Maintenance teams.
- Maintained end-to-end ownership of assigned manufacturing processes from initial deployment through sustained production.
- Led line balancing, SMED-based changeover reduction, and standard work deployment, improving line output efficiency by 15%.
- Provided regular **project status updates to site leadership, highlighting risks, dependencies, milestones**, and corrective actions to ensure on-time delivery.
- Designed and validated **fixtures and go/no-go gauges** (SolidWorks / 3D printing), reducing inspection time by **80%** and rework by **12%**.
- Designed and **3D printed fixtures and spare CNC / panel saw components**, reducing lead time and **cost by up to 90%**.
- Conducted **feasibility studies and cost-benefit analyses** for automation, ERP, RFID, and process technology upgrades.

Continuous Improvement Engineer Lead | MJB Wood Group, Clio SC (Feb 2022 - Apr 2023)

- Served as **CI and process engineering lead** for CNC and assembly operations, establishing operating standards, inspection checkpoints, and KPI reporting.
- Implemented **in-process inspection controls and CAPA**, improving **on-time delivery by 12%** and increasing first pass yield.
- Trained and coached operators, technicians, and engineers on Lean principles, standard work, and problem-solving methodologies to build a sustainable continuous improvement culture.
- Authored and maintained **30+ SOPs and work instructions** for machine operation, maintenance, material handling, and safety.
- Facilitated **Kaizen events and Value Stream Mapping workshops** to identify waste, improve flow, and sustain CI initiatives.
- Developed **cost models and downtime analyses** to communicate risks and improvement priorities to site leadership.
- Supported preventive maintenance planning for **7 assets across 2 lines**, improved PM completion and **reduced unplanned downtime by 10%**.

Continuous Improvement Intern | QAP, Hastings, MI (Oct 2021 – Feb 2022)

- Performed **root cause analysis** on sheet-metal forming processes, **reducing downtime by 60%** through process redesign.
- Created plant layouts and performance dashboards using **AutoCAD and Tableau** to support production and quality decision-making.

ADDITIONAL EXPERIENCE

Gas Turbine Research Establishment (DRDO) - Research Assistant (Jan 2018 - Apr 2018): Built MATLAB and ANSYS based gear stiffness models, reducing computation time by **80%** and improving accuracy to within a **10% error margin**.

Nuclear Fuel Corporation and Ford Motors - Internships (2017): Supported manufacturing documentation, inspection learning, and Kaizen observation in safety critical production environments.

TECHNICAL SKILLS

Industrial Engineering Core:	SPC (control charts, Cpk/Ppk), Statistical analysis, RCA/CAPA, Time studies, Standard Work, PFMEA, CTQ, IQ/OQ/PQ, Lean/Six Sigma, Poka-Yoke, Change management, Nonconformance (NCR)
Process Engineering Tools:	Lean Manufacturing, CAPA, RCA (Fishbone), Poka-yoke, ISO 9001 / ISO 14001, IATF 16949 awareness, Continuous Improvement methodologies (DMAIC, DFSS, VSM), Process control (Ppk, Cpk), Process validation, Regulated manufacturing environments
CAD:	SolidWorks, AutoCAD 3D, Autodesk Inventor, ANSYS, Visio
Data & Reporting:	Power BI, Tableau, Excel, Python, MATLAB, Minitab, ERP (SAP, RAMCO), MS Project

CERTIFICATIONS

- **PMP certified**
- **Lean Six Sigma Green Belt (CSSGB)**
- **SolidWorks (CSWA)**
- **AutoCAD Certified User**
- **Tableau Desktop Specialist**

EDUCATION

MS, Mechanical Engineering
BTech, Mechanical Engineering

Western Michigan University | 2019 - 2021
SASTRA University | 2014 - 2018