Simon Vega

Lead Manufacturing Engineer, CNC Process Engineering

(207) 555-1846 | simon.vega@example.com | linkedin.com/example/simonvega | Portland, ME 04103

STRENGTHS

Process Ownership
Owned process plans, tooling, equipment needs, and shop floor records for complex CNC production. Operators gained clearer guidance.

Practical Problem Solving
When recurring variation returned, reviewed data with machinists and quality, tested options, and restored stable execution without shortcuts.

New Product Introduction
Readiness reviews surfaced tooling and manufacturability risks early. Production teams entered first runs with better preparation and confidence.

Lean Improvement
Kaizen sessions turned operator observations into visual controls, standard work, and smoother movement between machining and inspection.

Cross Functional Coordination
CAM, quality, maintenance, and operations partners received clear decisions and organized records, making difficult process changes easier to execute.

SKILLS

CNC machining

Process development | Tooling

New Product Introduction

CAM collaboration | Mastercam

Lean manufacturing | Kaizen

Root cause analysis

Process validation

Manufacturability review

Work instructions

Technical documentation

SUMMARY

Lead Manufacturing Engineer with more than eight years supporting CNC machining, manufacturing process development, tooling, equipment, and **New Product Introduction** in high mix industrial environments. Career progression reflects increasing ownership, from supervised shop floor support through lead level process engineering for complex rotating equipment components. Translates design requirements into practical manufacturing methods, validates tools and process changes, and partners with NC programmers, machinists, quality, operations, maintenance, and design engineering. Uses **Lean manufacturing**, Kaizen, **root cause analysis**, **process validation**, and organized technical documentation to improve safety, quality, delivery, and cost. Recent work strengthened readiness for new products, stabilized difficult machining processes, and improved communication between engineering and production. Ready to contribute onsite in Ellsworth through sound technical judgment, clear coordination, and disciplined execution.

EXPERIENCE

Senior Manufacturing Engineer

Northstar Precision Systems | September 2023 - Present | South Portland, Maine

Leads manufacturing engineering support for a high mix CNC machining area producing complex rotating equipment components. Owns process plans, tooling strategies, equipment requirements, readiness activities, technical records, and shop floor implementation. Coordinates with NC programmers, machinists, quality, maintenance, design engineering, and operations. Role centers on practical decisions that stabilize production while protecting safety, quality, delivery, and cost.

- Owned CNC process plans and **tooling strategies** for rotating equipment components, stabilizing high mix production execution.
- Led product readiness reviews, identifying **manufacturability** risks before tooling validation and routine production release.
- Refined CAM strategies with NC programmers and machinists, improving setup stability for difficult features.
- Facilitated **Kaizen** events that converted operator feedback into standard work and visual controls.
- Resolved production constraints through **root cause analysis**, technical trials, and cross functional engineering reviews.
- Planned **tooling** and **equipment** changes, maintaining validation evidence, training records, and implementation handoffs.

Manufacturing Engineer II

Acadia Motion Components | January 2021 - August 2023 | Augusta, Maine

Managed manufacturing methods for CNC machined housings, shafts, and precision assemblies. Converted engineering requirements into routings, setup guidance, tooling selections, inspection expectations, and controlled production instructions. Supported product introductions, process trials, fixture prove outs, and first build issue resolution. Used Lean methods and structured project practices to improve flow, visibility, and technical record **quality**.

- Managed CNC methods for housings and shafts, translating engineering requirements into controlled production instructions.
- Coordinated fixture prove outs and gage readiness for revised components entering first build production.
- Diagnosed recurring process problems using machining data, defect history, and direct **shop floor** observation.
- Aligned **CAM** specialists on toolpaths, workholding, cutters, and sequence choices for dimensional control.
- Applied Lean methods to point of use **tooling**, queue reduction, and cellular workflow improvements.
- Tracked concurrent improvement assignments through milestones, risks, stakeholder updates, and organized technical records.

Shop floor troubleshooting

Project management

LANGUAGES

English — Native

Spanish — Intermediate

MY CAREER

- Senior Manufacturing Engineer at Northstar Precision Systems (3 Years)
- Manufacturing Engineer II at Acadia Motion Components (2.6 Years)
- Manufacturing Engineer at Kennebec Industrial Machining (1.4 Years)
- Associate Manufacturing Engineer at Pine Ridge Manufacturing Solutions (1 Years)

Manufacturing Engineer

Kennebec Industrial Machining | July 2019 - December 2020 | Waterville, Maine

Supported CNC milling and turning operations across repeat production and low volume new parts. Maintained process sheets, tooling documentation, machine setup requirements, and approved work instructions. Investigated dimensional variation, tool wear, fixture issues, and machine disruptions with measurement data and operator input. Coordinated **process validation** and small equipment improvements with quality, maintenance, machinists, and vendors.

- Maintained CNC milling and turning process sheets, tooling records, setup requirements, and work instructions.
- Investigated dimensional variation through measurement data, tool wear review, fixture checks, and operator input.
- Prepared **manufacturing plans** for engineering changes and low volume parts using drawing requirements and machine capability.
- Validated revised processes with quality personnel through first piece inspection and documented production checks.
- Contributed to **Kaizen** workshops that improved setup preparation, visual management, **safety**, and quality expectations.
- Coordinated **tooling** improvements with machinists, maintenance, and vendors through documented acceptance steps.

Associate Manufacturing Engineer

Pine Ridge Manufacturing Solutions | June 2018 - June 2019 | Lewiston, Maine

Provided supervised manufacturing engineering support for CNC production while building practical expertise in process development, documentation, and shop floor problem solving. Updated routings, tools, fixtures, setup instructions, and validation records. Worked with experienced engineers, programmers, machinists, and quality technicians on process trials, equipment changes, and Lean activities. Escalated complex decisions with clear evidence and organized technical notes.

- Updated CNC routings, tool records, fixture details, and setup instructions under engineering supervision.
- Supported machined component trials by reviewing drawings, confirming **tooling**, and recording technical issues.
- Analyzed setup variation and tool condition using **shop floor** data, then proposed corrective actions.
- Prepared **equipment** change checklists, operator communications, validation records, and controlled instructions.
- Participated in Lean activities involving standard work, visual controls, and smoother inspection handoffs.
- Built CNC process knowledge through training and direct collaboration with programmers, machinists, and quality technicians.

PROJECTS

Rotating Equipment CNC Readiness | 2024

Created a structured readiness approach for complex rotating equipment components, connecting design review, tooling, CAM coordination, process validation, operator training, and production release decisions.

Lean Machining Flow Improvement | 2022

Reworked cellular machining support around point of use tooling, visual controls, queue reduction, and standard work, giving operators clearer flow from machining through inspection.

LEADERSHIP & AWARDS

- Earned Lean Six Sigma Green Belt recognition in 2024 after applying structured improvement methods within CNC manufacturing operations.
- Received internal recognition for reliable New Product Introduction support, clear technical documentation, and practical coordination across engineering and operations.
- Selected as a recurring Kaizen facilitator, reflecting trust from peers and production leaders during shop floor improvement work.

EDUCATION

Bachelor of Science in Mechanical Engineering

University of Southern Maine GPA: 3.5 2018 Portland, Maine

Coursework: *Manufacturing processes, mechanical design, materials science, engineering project management*

CERTIFICATIONS

- Lean Six Sigma Green Belt 2024
- Mastercam Core Certification 2023
- OSHA 30 Hour General Industry 2022

TECHNICAL SKILLS

- **CNC Manufacturing:** CNC milling, CNC turning, machining process development
- **CAM Programming:** Mastercam, NC Programming, toolpath planning
- **Tooling Systems:** Cutting tools, fixtures, workholding
- **Process Documentation:** Routings, setup sheets, work instructions
- **Lean Methods:** Lean manufacturing, Kaizen, standard work
- **Quality Methods:** First piece inspection, process validation, defect analysis
- **Problem Solving:** Root cause analysis, technical trials, corrective actions
- **Production Equipment:** CNC machines, gages, maintenance coordination
- **New Product Introduction:** Manufacturing plans, readiness reviews, first build support
- **Project Management:** Milestones, risk tracking, action logs
- **Safety Practices:** OSHA 30 Hour General Industry, safe work methods, visual controls
- **Engineering Collaboration:** Design reviews, manufacturability review, engineering disposition

PROFESSIONAL AFFILIATIONS

- Member, Society of Manufacturing Engineers, with ongoing interest in CNC process development and production engineering.
- Participant, local Lean manufacturing community, sharing practical lessons from Kaizen, standard work, and process validation.

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST