

Rongali Pranay Teja
Manufacturing Engineer

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SUMMARY

Manufacturing Engineer with 3+ years of experience in automotive and medical device manufacturing environments, specializing in manufacturing process optimization, CNC machining support, line balancing, Lean manufacturing, CAPA implementation, and root cause analysis. Proficient in process validation (IQ/OQ/PQ), GMP, FDA, and ISO 13485 compliance, along with GD&T-based dimensional inspection, torque verification, and non-conformance management. Proven ability to improve production throughput by 14%, reduce rework, and enhance manufacturing efficiency through continuous improvement, KPI analysis, and cross-functional collaboration.

TECHNICAL SKILLS

- Manufacturing Engineering: Process Optimization, Production Engineering, Line Balancing, Lean Manufacturing, CNC Machining, Workflow Improvement, Continuous Improvement, Production Throughput Optimization
- Quality & Validation: CAPA, Root Cause Analysis, 5-Why, Fishbone Analysis, IQ/OQ/PQ Validation, GMP, FDA, ISO 13485 Compliance, Non-Conformance Management, SOP Development
- Inspection & Quality Control: GD&T, Precision Dimensional Inspection, Tolerance Verification, In-Process Inspection, Torque Verification, Quality Audits, Rework Reduction, Process Stability
- Tools: Maximo, Microsoft Excel, Vernier Calipers, Micrometers, Bore Gauges, Height Gauges, Calibrated Torque Tools
- Operations & Collaboration: Cross-Functional Collaboration, Production Planning, Manufacturing Documentation, KPI Tracking, Downtime Reduction, Scrap Reduction

WORK EXPERIENCE

Edwards Lifesciences

Manufacturing Engineer

Irvine, CA

Jul 2025 - Present

- Optimized medical device manufacturing processes by analyzing cycle times, workflow bottlenecks, and equipment utilization, improving production throughput by 14% within GMP-regulated operations.
- Collaborated with Quality, Process, and Production teams to implement CAPA and Lean manufacturing initiatives, reducing process deviations by 18% and improving first-pass yield across assembly lines.
- Coordinated process validation activities, including IQ/OQ/PQ documentation, SOP revisions, and risk assessments to ensure compliance with FDA, GMP, and ISO 13485 manufacturing standards.
- Developed and monitored manufacturing KPIs related to scrap, downtime, rework, and production efficiency using Excel and Maximo, contributing to a reduction of 20 monthly rework hours through process improvements.
- Led root cause analysis investigations using 5-Why and Fishbone methodologies for recurring production non-conformances, implementing corrective actions that improved process stability and manufacturing consistency.

Mahindra & Mahindra

Manufacturing Engineer

India

May 2022 - Jul 2023

- Conducted precision dimensional inspections on automotive components using Vernier calipers, micrometers, and bore gauges, ensuring tolerance compliance and alignment accuracy while maintaining a first-pass acceptance rate above 97%.
- Supervised CNC machining and sub-assembly production across manufacturing cells, supporting daily output of 180+ components and improving takt time adherence through monitoring line throughput and machine utilization.
- Performed layered in-process torque verification and inspections audits using calibrated torque tools on engine and vehicle assemblies, identifying 50+ assembly deviations and contributing to a 16% reduction in rework.
- Applied root cause analysis techniques, including 5-Why and Fishbone methodology, to investigate machining and assembly defects, implementing corrective measures that reduced monthly rework hours by 22 hours and improved process stability.
- Collaborated with quality assurance and production planning teams to manage non-conformance reporting, CAPA implementation, and inspection documentation, reducing issue resolution turnaround time by 28% across operations.
- Led process optimization and production stabilization initiatives by assessing cycle times, variation trends, and assembly bottlenecks, improving manufacturing consistency, and reducing unplanned production interruptions.

Mahindra & Mahindra

Manufacturing Engineer Intern

India

May 2021 - Apr 2022

- Verified dimensional accuracy of 150+ automotive components per shift using precision metrology tools and GD&T standards to support consistent production quality.
- Monitored production line activities and optimized line balancing across assembly and machining operations, identifying bottlenecks that improved cycle efficiency by 12% and reduced workstation idle time by 18 hours monthly.
- Conducted in-process inspections and torque validation on critical assemblies, resolving 40+ specification deviations and reducing recurring rework issues across production operations.
- Reduced inspection turnaround time by 20 hours monthly and improved shop-floor consistency.

EDUCATION

University of Houston, Houston, TX

Master's in Industrial Engineering

Aug 2023 - May 2025

GITAM University, Visakhapatnam, Andhra Pradesh

B. Tech in Mechanical Engineering

Jun 2018 - Apr 2022

PROJECTS

Process Optimization - Dimensional Machine Works

- Implemented SMED and 5S initiatives to improve production setup, shift output, and workflow efficiency across 8 operations through cell layout optimization and value stream mapping.

Supplier Quality Improvement- Six Sigma Project, University of Houston

- Facilitated a Six Sigma DMAIC initiative using Fishbone analysis to reduce material handling equipment defects by 12%, enhancing process reliability and operational efficiency through standardized workflows and process controls.

CERTIFICATIONS

- OSHA - Material handling and storage, Catia V5, Six Sigma Green Belt