

Results-oriented Production & Assembly Engineer with over **3.5+ years** of hands-on experience in automotive manufacturing, specializing in manual and automated wiring harness assembly. Proven track record in line balancing, takt and cycle time optimization, OEE improvement, and lean manufacturing practices. Seeking to contribute my technical expertise, process optimization skills, and data-driven approach to a progressive organization focused on operational excellence and continuous improvement.

AREA OF EXPERTISE

- Assembly Line Operations
- Line Balancing & Yamazumi
- Productivity Improvement

- Lean Manufacturing
- Manpower Planning (PMPD)
- SAP Production Transactions

- Cycle Time Optimization
- OEE Loss Analysis
- Rejection Analysis (RCA)

SYNOPSIS

- Over **3.5+ years** of experience in automotive manufacturing with a focus on production and assembly operations.
- Proficient in managing manual and automated wiring harness assembly lines to achieve efficiency and output targets.
- Specialized in line balancing, takt time, and cycle time optimization to streamline operations and reduce bottlenecks.
- Demonstrated success in improving assembly line output by 43% and reducing cost per component by 45%.
- Skilled in SAP for production transactions, MIS generation, and KPI-based performance monitoring.
- Strong command over lean manufacturing tools and Kaizen initiatives to enhance productivity and eliminate waste.
- Experienced in conducting time and motion studies and developing man-machine charts for process enhancement.
- Proven ability to maintain high 5S and safety standards, consistently achieving audit scores above 95%.
- Effective in manpower planning using PMPD methodology, optimizing labor utilization and shift scheduling.
- Adept at cross-functional coordination with quality, maintenance, and planning teams for seamless operations.

EXPERIENCE

Motherson Sumi Wiring India Limited

AUGUST 2025 – PRESENT

Production Engineer

- Lead daily operations on manual and conveyor-based wiring harness assembly lines to meet production targets.
- Monitor key metrics such as WIP, rejection rates, manpower utilization, and safety KPIs.
- Collaborate with quality, maintenance, and planning teams to ensure timely delivery and process continuity.
- Execute line balancing and takt time improvements to increase throughput and reduce bottlenecks.
- Perform SAP entries for production transactions and maintain accurate MIS reports.
- Drive Kaizen and continuous improvement initiatives to resolve inefficiencies and enhance line performance.
- Conduct root cause analysis for quality issues using structured problem-solving tools.
- Enforce safety protocols and maintain 5S compliance across the shop floor.
- Manage manpower planning and shift allocation aligned with PMPD goals.
- Provide real-time reporting for informed decision-making and process optimization.

Rane (Madras) Limited

MARCH 2023 – JUNE 2025

Production Supervisor

- Supervised 46 operators in machining and assembly units to meet quality and productivity objectives.
- Executed daily production planning, machine loading, and labor deployment based on PMPD.
- Reduced operator fatigue and cycle time through layout and ergonomic enhancements.
- Used Pareto and quadrant analysis tools to identify and minimize rejections.
- Maintained consistent 5S scores above 95% and achieved zero-accident workplace record.
- Developed KPI dashboards highlighting performance metrics including CPC and efficiency.
- Collaborated with quality and maintenance teams to reduce unplanned downtime.
- Led lean manufacturing projects focused on waste reduction and workflow improvement.
- Standardized processes by implementing SOPs and detailed work instructions.

Graduate Apprentice Trainee

- Acquired hands-on experience in assembly and machining shop-floor operations.
- Supported time and motion studies aimed at productivity enhancement.
- Documented production processes and assisted in maintaining standard work practices.
- Participated in production planning and resource allocation activities.
- Contributed to root cause analysis and corrective action planning for deviations.
- Learned principles of manpower utilization and shift scheduling.
- Maintained safety and 5S compliance across assigned production zones.
- Worked with the quality team to ensure process and product conformance.
- Observed and analyzed cycle times and workload distribution for efficiency gains.
- Gained foundational skills in KPI tracking and SAP-based production entries.

PROJECTS

Productivity Improvement Projects

Team Member, Idea Generator

Achieved 43% output increase, 38% cell capacity improvement, 45% CPC reduction, 23% PMPD increase through cycle time reduction during export volume ramp-up

New Wiring Harness Conveyor Line Setup

Key Team Member

Contributed to setting up and stabilizing a new line for customer volume expansion

TECHNICAL SKILLS

Operating System	Windows 2000/XP/7/8.1/10
Office Packages	MS Outlook/2000/9/7/10, MS Office
Assembly & Production Operations	Manual & Automated Assembly Line Operations, Line Balancing & Yamazumi Analysis, Takt Time & Cycle Time Optimization, OEE Calculation & Loss Analysis
Workplace Systems	5S Implementation, Safety Systems
Planning & Reporting	Manpower Planning & PMPD, KPI Reporting, MS Excel (for Production & KPI Reports), SAP (Production Transactions)

EDUCATION

A.R.J College of Engineering & Technology, Thanjavur, Tamil Nadu

Bachelor of Engineering in Mechanical Engineering

CORE COMPETENCIES

- Proven expertise in optimizing cycle times and takt alignment to enhance operational throughput.
- Skilled in coordinating cross-functional teams to ensure seamless production flow and timely issue resolution.
- Demonstrated ability to implement lean manufacturing techniques that significantly reduce cost per component.
- Adept at utilizing SAP for real-time production transaction entries and performance reporting.
- Experienced in conducting time and motion studies to identify inefficiencies and apply corrective improvements.
- Effective in manpower planning using PMPD to optimize resource allocation and productivity.
- Strong track record in maintaining 5S and safety compliance, consistently achieving audit scores above 95%.
- Capable of designing and executing line balancing strategies through Yamazumi analysis.
- Successful in driving continuous improvement projects that led to substantial gains in output and quality.
- Versatile in handling both manual and automated assembly lines in high-volume manufacturing environments.

LANGUAGES KNOWN

English	✓ Read ✓ Write ✓ Speak
Tamil	✓ Read ✓ Write ✓ Speak