

Vaibhav Tyagi

Detroit Metropolitan Area



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Summary

Industrial Engineer with an undergraduate degree in Mechanical Engineering and more than 7 years of experience in Manufacturing Quality & Engineering Design.

AREA OF EXPERTISE:

- Manufacturing- Six Sigma Green belt, SAP ERP, Time study, Line balancing, VSM, 5S, CAPA, Kaizan, GD&T, MODAPTS
- Quality Control- APQP, PPAP, PFMEA, DFMEA, SPC, Root Cause Analysis, TQM, DFSS tools, Control Plan, 7 QC Tools

The combination of experience and higher education have supplemented my skill set and helped me reach my short-term goals. Enriching experiences in my previous roles have boosted my analytical & problem-solving skills.

Experience



Advanced Quality Engineer

Yanfeng

Mar 2019 - Present (1 year 10 months +)

Currently leading Advanced Quality Planning activities for FCA program launch, including PPAP, MSA, PPHR, Control Plan, FMEAs and Statistical Process Control (SPC) standards.

- Managing all Customer specific Advanced Quality Planning requirements, utilizing all applicable Customer and internal specific systems throughout launch
- Working with SDT/Launch team to ensure that all Launch deliverables are completed on time & critical issues are identified & resolved in a timely manner.
- Coordinating PPAP and specific customer submission packages for approval.
- Leading APQP and PPAP activities for both internal and external suppliers; including DFMEA, PFMEA, and Control Plans & track Supplier PPAP readiness and approval of same.
- Developing Prototype, Pre-production & Production Controls Plans & worked very closely with AME and Plant resources to develop Process Flow and PFMEAs
- Developing Manufacturing Quality Systems for prototype & pre-production builds (e.g. ODS, WI, Gage Instructions, etc)
- Leading the Customer FreshEyes / Safe-Launch documents for pre-production and initial SOP builds.
- Co-ordinating dimensional approval & uploading dimensional results to FCA portal.
- Ensuring Capability Studies are properly performed & documented for new program significant and critical characteristics
- Managing the color/appearance approval process - Pre/post grain & color ATAR approvals
- Managing Gaging needs and Fixture design, on-time build and prove-out (passing Gage R/R)



Quality Engineer

Lear Corporation

Sep 2018 - Feb 2019 (6 months)

Working in Lear's IMA, Detroit manufacturing facility

Product: Automotive Seats (Ford Mustang S550, Ranger Truck P375)

Customer: Ford & General Motors

- Develop, review and improve quality documents (APQP, PFMEA, SPC, MSA, Control Plan, Visual Aides, Quality Alert, Work Instructions, CAPA)
- Perform failure analysis on NOK parts to determine root cause and initiate corrective actions
- Experienced in providing support for initial phases of new program related APQP, safe launch, initiation and implementation
- Facilitate warranty claims from customer and perform Root Cause Analysis utilizing CAPA/ 8D, Why-Why Analysis and Fishbone Diagram
- Containment, stop ship, perform risk analysis and disposition of non-conforming parts
- Executed 5S and Kaizen improvement process in shop floor to decrease cycle time, inventory costs and high productivity
- Ensured compliance with quality and industrial specifications- Control plan/PFMEA development
- Good knowledge of IATF 16949 and ISO 9001:2015 quality standards
- Work in cross-functional teams with engineering, operations, and finance in all customer applications and will work with the Lear Production System (LPS) on manufacturing changes as well as internal manufacturing with the customer



Project Engineer

Professional Industrial Consultants

Feb 2017 - Sep 2017 (8 months)

- FCA Toledo Project: Assisted quality engineer in maintaining engineering documents such as ECN (Engineering Change Notice), PFMEA, Control Plan and Work Instructions
- Performed quality studies that includes MSA- Gauge R &R, SPC to monitor the performance, benchmarking
- Involved in root cause analysis for particular defects using the tools such as 8D/ CAPA, why-why analysis, 7QC tools, Cause and Effect diagram
- Increased the efficiency by 20% by redesigning the assembly layout and improving ergonomics
- Praxair's Ecorse project: Piping & equipment installation for up to 1,650 tons of industrial gases production per day
- Project management: Progress review & earned value reporting, issuing Field change notices (FCNs) with estimates, subcontractors invoice approval, extra work tracking & client billing for a \$13M project
- QA/QC: Keeping track of heat numbers, weld progress & weld inspection for piping installation, pipe testing with line pressure ranging from 15 PSI to 800 PSI
- Engineering coordination: Submitting Request for Information (RFIs) for engineering disparity, keeping site supervisor updated with latest P&IDs and fabrication drawings, ensuring timely material delivery from our fabrication shop



Assistant Design Engineer

MECON Limited, India

Jul 2012 - Jul 2015 (3 years 1 month)

- Worked in Material Handling (MH) section of MECON Limited, a Govt. of India Enterprise, which provides Design & Engineering Consultancy for EPC projects to Integrated Steel Plant.
- Root Cause Analysis and Raw Material Handling System Re-designing project, owing to almost double the steel production (4MT to 7MT) for Steel Authority of India Limited, Durgapur plant.
- Designed Material routing layout and flow diagram for steel plant using AutoCAD based on Material Requirement planning targeting reduced lead times and in-process inventory.

- Developed a tool using Microsoft Excel for the Design calculations (Motor KW, Belt Rating) of Belt conveyors saving drawing approval time by 70%.
- Scrutinized the tender bidding from various suppliers and made decisions based on supplier's technology, volume of work and cost of bidding.
- Project Management and Co-ordination between Client and Suppliers.
- Coordinated cross-functional teams in prioritizing jobs and orienting the business objective into analytical formats for efficient solutions.
- Responsible for implementing Six Sigma principles by digitalizing departmental drawings library and practicing Standard Operating Procedures at work, increasing productivity by at least 25%.
- Guided clients towards economically viable solutions using statistical analysis, optimization and techno economic feasibility Analysis.
- Being an Internal Auditor helped my organization in bringing a systematic and disciplined approach by performing inter-departmental audits and enforcing SOPs.

Education



University of Houston

Master's Degree, Industrial Engineering

2015 - 2016



National Institute of Technology Hamirpur

Bachelor's Degree, Mechanical Engineering

2008 - 2012

Licenses & Certifications



Certified Six Sigma - Green Belt - Vskills - India's Largest Certification Body



Certificate for Internal Quality Auditing as per ISO 9001:2008 QMS - MECON

Limited, India

Skills

Advanced Product Quality Planning (APQP) • Production Part Approval Process (PPAP) • Statistical Process Control (SPC) • MSA • QC Tools • Gage R&R • Corrective and Preventive Action (CAPA) • Process Capability • OEMs