

Camden Das

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SUMMARY

New product manufacturing engineer with 10 years of experience commercializing complex electromechanical and **semiconductor equipment** from engineering release through production readiness. Leads BOM and **product structure** development, OMS validation, sourcing strategy, managed builds, design reviews, and supplier manufacturing support. Uses **3D solid models**, MLO, DMU, DFA, DFAe, DFTp, and ITO methods to identify assembly constraints before release and guide cost, quality, and cycle time decisions. Coordinates CCB workflows involving NSRs, ECOs, SPSSs, and ESWs, then drives RCCA and LTCA for recurring manufacturing issues. Provides technical direction, training, and practical guidance for internal factories, contract manufacturers, and **piece part suppliers**. This experience supports clear commercialization decisions, controlled product releases, and dependable production readiness across complex programs.

EXPERIENCE

Senior New Product Manufacturing Engineer

July 2022 - Present

Quantum Process Equipment

San Jose, CA

Leads manufacturing readiness for complex semiconductor process equipment, owning product structure, BOM maturity, OMS validation, sourcing decisions, managed builds, change control, and supplier readiness. Provides technical direction across engineering, operations, quality, sourcing, **contract manufacturing**, and piece part suppliers. Guides moderate complexity programs from design review through controlled production release.

- Led semiconductor equipment release planning with BOM maturity, OMS validation, **sourcing strategy**, and **managed builds**.
- Used MLO, DMU, and **3D solid models** to resolve access and serviceability constraints before pilot builds.
- Applied DFA, DFAe, DFTp, and ITO reviews to improve assembly quality, cost, and **cycle time**.
- Chaired CCB workflows covering NSRs, ECOs, SPSSs, and ESWs across cross functional stakeholders.
- Directed RCCA and LTCA investigations, converting recurring defects into systemic process and software controls.
- Trained **contract manufacturers** and suppliers on build requirements, supporting stable transfer into controlled production.

New Product Manufacturing Engineer

June 2019 - June 2022

Silicon Valley Vacuum Systems

Santa Clara, CA

Owned manufacturing engineering deliverables for vacuum and process modules, connecting engineering intent with factory execution through controlled BOMs, assembly structures, OMS content, pilot builds, and change implementation. Coordinated technicians, suppliers, planning, procurement, quality, and engineering teams during new product ramp and production release.

- Built controlled BOMs and assembly structures for vacuum modules, linking released engineering data with factory execution.
- Validated **OMS** content during pilot builds using technician feedback, tooling needs, inspection points, and configuration controls.
- Reviewed digital mock ups and raised design changes for access, orientation, routing, fastening, and testing.
- Coordinated **ECO** implementation across engineering, planning, procurement, **quality**, and manufacturing teams.
- Facilitated **managed builds** for new configurations, protecting continuity through documented engineering dispositions.
- Trained technicians and supplier engineers on assemblies, process changes, and acceptance expectations during product ramp.

Manufacturing Engineer II

June 2017 - May 2019

Advanced Wafer Technologies

Milpitas, CA

Supported introduction of precision electromechanical assemblies for semiconductor manufacturing equipment. Translated engineering data into repeatable factory methods, maintained BOM and documentation accuracy, supported **design reviews**, investigated nonconformances, and coordinated supplier corrective actions for pilot and preproduction builds.

- Translated released engineering data into repeatable build methods for precision **semiconductor equipment** assemblies.
- Maintained **BOM** and manufacturing documentation accuracy through engineering changes and configuration reconciliation.
- Conducted **DFA** reviews with mechanical and electrical engineers, reducing assembly risks before volume production.
- Investigated nonconforming parts with root cause methods, documenting corrective actions through verification.
- Coordinated supplier quality and **manufacturability** concerns using technical evidence for disposition and **corrective action**.
- Captured pilot build cycle time and technician feedback for later process revisions.

Manufacturing Engineer

June 2016 - May 2017

Pacific Precision Instruments

Sunnyvale, CA

Supported production introduction for complex precision equipment through assembly documentation, engineering release review, material readiness, floor support, and structured problem analysis. Converted drawings and BOM data into practical sequences while tracking configuration gaps, supplier issues, and corrective actions through closure.

- Prepared assembly documentation and verified material readiness for scheduled precision equipment builds.
- Converted drawings and **BOM** data into practical sequences, escalating configuration gaps before execution.

- Collected technician and quality observations, refining work instructions around recurring assembly issues.
- Verified affected documentation, parts, and work in process configurations during engineering change implementation.
- Organized evidence for senior engineers during assembly and supplier problem investigations.
- Provided floor support during early builds, reinforcing safe tools, clean practices, and controlled procedures.

PROJECTS

Semiconductor Equipment Release Readiness 📅 2024

Coordinated BOM maturity, OMS validation, managed builds, design reviews, and supplier readiness for complex equipment releases. Manufacturing feedback shaped practical production decisions.

Corrective Action Control System 📅 2022

Connected CCB records, RCCA findings, LTCA actions, supplier evidence, and production controls. Work clarified recurring issues and supported lasting process improvements.

LEADERSHIP & AWARDS

- Received ASQ Certified Quality Engineer recognition in 2021 for demonstrated quality engineering knowledge.
- Recognized by manufacturing partners for practical guidance during complex equipment builds and supplier issue resolution.
- Selected to lead cross functional CCB activities supporting controlled product release decisions.

EDUCATION

Bachelor's Degree in Mechanical Engineering

2016

San Jose State University GPA: 3.5

San Jose, CA

Coursework: Manufacturing processes, mechanical design, materials science, quality engineering

CERTIFICATIONS

- ASQ Certified Quality Engineer 📅 2021
- Certified Manufacturing Engineer 📅 2022

TECHNICAL SKILLS

- **Product Data Management:** BOMs, product structures, engineering releases
- **Manufacturing Documentation:** OMS, assembly instructions, inspection points
- **Design Analysis:** 3D solid models, MLO, DMU
- **Design for Manufacturing:** DFA, DFAe, DFTp
- **Industrial Operations:** ITO, operational efficiency, cycle time
- **Change Management:** CCB, NSRs, ECOs
- **Supplier Quality:** SPSs, supplier engineering, piece part quality
- **Corrective Action:** LTCA, RCCA, root cause analysis
- **Build Execution:** managed builds, pilot builds, preproduction builds
- **Manufacturing Strategy:** sourcing strategy, test strategy, commercialization
- **Production Environments:** semiconductor equipment, clean room manufacturing, controlled production
- **Technical Training:** contract manufacturers, supplier engineers, manufacturing technicians

SKILLS

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|----------------------------|----------------------------|--------------------------|----------------------------|
| • New Product Introduction | • Managed Builds | • Supplier Engineering | • Semiconductor Equipment |
| • BOM Management | • Design for Manufacturing | • Manufacturing Strategy | • Clean Room Manufacturing |
| • Product Structure | • Root Cause Analysis | • Test Strategy | • Contract Manufacturing |
| • OMS Validation | • Change Control Board | • Sourcing Strategy | |

PROFESSIONAL AFFILIATIONS

- Professional connection with semiconductor equipment manufacturing and supplier engineering communities.
- Ongoing engagement with quality engineering practices through ASQ certification and applied corrective action work.

LANGUAGES

- English (Native)
- Hindi (Intermediate)

ADDITIONAL INFORMATION

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

REFERENCES

AVAILABLE ON REQUEST