Tridecs
CORPORATION
Prototype & Production Machining

QUALITY MANUAL

Uncontrolled
Version 16.2

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This manual is authorized and approved
by the Board of Directors of
Tridecs Corporation

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SECTION I

Introduction

1.1.0 Quality Manual Overview (ISO 7.4)

Tridecs Corporation issues this Quality Manual to its customers and employees to provide a comprehensive understanding of our quality management system. The guidelines set forth in this manual are implemented to ensure that all products manufactured by Tridecs Corporation meet all specifications as defined by our customers.

1.2.0 Quality Policy (ISO 5.1, 5.2)

At Tridecs Corporation, we are dedicated to delivering precision-machined components that consistently meet or exceed customer expectations, while complying with applicable standards and regulations. We strive for excellence in our processes, products, and services, and we are committed to continual improvement.

(SEE TRIDECS QUALITY POLICY PRINCIPLES (100-REF-1000), NETWORK DRIVE)

This Quality Policy provides a framework for establishing and maintaining a robust quality management system, and it is communicated to all employees, suppliers, and interested parties. We are committed to reviewing and updating our Quality Policy regularly to ensure its ongoing suitability and alignment with our business objectives.

1.3.0 Scope

This quality manual applies to all processes, activities, and functions performed within Tridecs Corporation. It encompasses the entire quality management system, including planning, control, and improvement of quality-related activities.

1.4.0 Distribution (ISO 7.4)

This quality manual is distributed to all employees and is available to interested parties upon request. It is the responsibility of each employee to be familiar with the contents of this manual and to comply with its requirements.

PART I
SECTION II

Quality Management System (ISO 4.4)

2.1.0 QMS Framework (ISO 7.5)

Tridecs Corporation has established and maintains a quality management system (QMS) based on the principles of ISO 9001:2015. The QMS provides a framework for ensuring that quality objectives are met, customer requirements are fulfilled, and continual improvement is achieved.

Tridecs Corporation's commitment to quality is to consistently provide precision-machined components that conform to customer requirements, applicable standards, and regulatory requirements. We strive for continuous improvement in our processes, customer satisfaction, and employee competence.

At Tridecs Corporation, quality management is a fundamental part of the production of ultra-precision products. Our procedures are not limited to products manufactured solely by Tridecs Corporation: Parts, materials, and outside processing procured by Tridecs Corporation for completion of a part or assembly must also pass our rigid quality standards.

2.2.0 Management Responsibility (ISO 5.1, 5.3)

Top management at Tridecs Corporation is committed to the effective implementation and maintenance of the QMS. They ensure that quality policy, objectives, and processes are established, communicated, and reviewed for suitability and effectiveness.

Tridecs Corporation's commitment to quality will include, at minimum, an internal review of its delivery and quality performance metrics, as well as the inputs and outputs of Tridecs' Management Review Procedure, performed annually (typically within two weeks of fiscal year end). These reviews will be used to generate new goals for the coming year.

If, through the course of a year, the trends of these metrics are determined to be cause for concern, a Management Review Meeting will be held impromptu to address the issues.

Annual Management Review Meetings should also provide assurances that the process performance and product quality metrics are measured and maintained at acceptable levels. These measurements should include a timely and effective communication and escalation process to address pertinent performance issues. These reviews shall be performed in accordance with the Management Review Procedure.

(SEE TRIDECS MANAGEMENT REVIEW PROCEDURE (101-PRO-1000), NETWORK DRIVE)

2.3.0 Resource Management (ISO 7.1, 7.2)

Tridecs Corporation allocates adequate resources, including human resources, infrastructure, and equipment, to support the effective operation of the QMS. Resources are managed to ensure their availability, suitability, and maintenance.

(SEE TRIDECS BUSINESS STRATEGY: 000-POL-0001)

2.4.0 Product Realization (ISO 4.2, 4.3)

Tridecs Corporation follows a systematic approach to product realization, including design and development, procurement of materials, production, inspection/compliance, and delivery. Processes are planned, controlled, and monitored to meet customer requirements and regulatory standards.

(SEE TRIDECS BUSINESS STRATEGY: 000-POL-0001)

2.5.0 Measurement, Analysis, and Improvement (ISO 9.1)

Tridecs Corporation implements processes for measuring, analyzing, and improving the performance of the QMS. Data is collected, analyzed, and used to drive decision-making, corrective actions, and preventive actions. Regular internal audits and management reviews are conducted to ensure the QMS's effectiveness and identify areas for improvement.
(SEE TRIDECS INTERNAL AUDIT PLAN(S): 101-PRO-1100 & 000-PRO-1100, SEE ALSO TRIDECS KPI CHECKLIST AND RESULTS: 101-FRM-1010 & 101-FRM-1020 (2024 LINK))

2.6.0 QMS Responsibilities

(SEE TRIDECS QMS RESPONSIBILITIES: 100-DTY-0001)

2.6.1: Tridecs Quality Manager: the role of the Quality Manager at Tridecs Corporation, a precision prototype, and production CNC machine shop, is crucial in establishing, implementing, maintaining, and continually improving the Quality Management System (QMS).

2.6.2: Tridecs Operations Manager: responsible for overseeing the day-to-day operations and ensuring efficiency, productivity, and quality in manufacturing processes.

PART I
SECTION III

Quality Planning

3.1.0 Quality Objectives (ISO 6.2)

As a manufacturer of custom parts to specifications defined by our customer, our goals are simple to state and, ironically, complicated to identify and quantify. It would be easy to say that our objective is to provide our customers with parts that meet specifications **100**% of the time and will always be on-time; this is, in fact, our goal. This perfect objective becomes a challenge with the complexity of the products we produce with an ever-changing environment in terms of workload, changing demands and challenging projects.

It will be our objective to provide our customers with **99**% in Quality and **85**% in On-Time delivery performance. To achieve this level of performance, many facets of our operation will be monitored, documented, and reviewed. Through a variety of metrics, we will evaluate our overall performance and determine our focus for continuous quality improvements.

3.2.0 Customer Requirements (ISO 4.2)

Tridecs Corporation actively identifies and understands customer requirements to ensure that products and services meet or exceed their expectations. Customer requirements are documented, communicated to relevant personnel, and monitored throughout the product realization process.

(SEE QUALITY MANUAL PROCEDURES PART II, SECTION VIII (CONTRACT REVIEW AND CONTROL))

3.3.0 Risk Management (ISO 6.1)

Tridecs Corporation identifies and manages risks associated with its processes, products, and services. Risk assessments are conducted, and appropriate controls and mitigation measures are implemented to minimize or eliminate potential risks.

(SEE RISK IDENTIFICATION AND MITIGATION FORM (000-FRM-0200) ON NETWORK DRIVE)

3.3.0 Internal and External Issues (ISO 4.1)

Tridecs Corporation, a CNC machine shop which deals with precision manufacturing using (CNC) machinery, would need to consider various internal and external issues to ensure compliance with ISO 9001. These issues impact the effectiveness of the quality management system and the overall performance of the organization.

(SEE INTERNAL AND EXTERNAL ISSUE IDENTIFICATION FORM (000-FRM-0100) ON NETWORK DRIVE)

PART I
SECTION IV

Documented Procedures (ISO 7.5)

4.1.0 Control of Documents

Tridecs Corporation maintains a documented procedure for controlling the creation, approval, distribution, and revision of documents within the QMS. Documented information is controlled to ensure its availability, accuracy, and suitability for use.
(SEE CONTROL OF INTERNAL DOCUMENTS PROCEDURE (000-PRO-0100) ON NETWORK DRIVE)

4.2.0 Control of Records

Tridecs Corporation establishes and maintains a documented procedure for the identification, collection, indexing, storage, retrieval, maintenance, and disposition of records generated within the QMS. Records are retained in accordance with applicable legal and regulatory requirements.
(DEPARTMENTAL RECORD RETENTION MAY VARY: SEE APPLICABLE QM PROCEDURE SECTION)

4.3.0 Non-conforming Product

Tridecs Corporation has a documented procedure for identifying, documenting, evaluating, segregating, and dispositioning nonconforming products. The procedure defines responsibilities, authorities, and actions required to address nonconformities and prevent their recurrence.
(IQC NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION III) (INTERNAL NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION VI)

4.4.0 Corrective Action

Tridecs Corporation follows a documented procedure for identifying, investigating, and addressing nonconformities, customer complaints, and other quality-related issues. Corrective actions are taken to eliminate the causes of nonconformities and prevent their recurrence.
(IQC NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION III) (INTERNAL NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION VI)

4.5.0 Preventive Action

Tridecs Corporation implements a documented procedure for identifying potential issues and taking proactive measures to prevent their occurrence. Preventive actions are aimed at addressing root causes and improving the effectiveness of the QMS.
(IQC NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION III) (INTERNAL NON-CONFORMING, SEE QM PROCEDURE: PART II, SECTION VI)

4.6.0 Internal Audits (ISO 6.1 & 9.2)

Tridecs Corporation conducts regular internal audits to assess the conformity and effectiveness of the QMS. Internal audits are planned, performed, and reported by trained internal auditors. Findings and recommendations are communicated to relevant personnel for corrective actions.
(SEE TRIDECS INTERNAL AUDIT PLAN(S): 101-PRO-1100 & 000-PRO-1100, SEE ALSO TRIDECS KPI CHECKLIST AND RESULTS: 101-FRM-1010 & 101-FRM-1020 (2024 LINK))

PART I
SECTION V

Quality Control

(SEE TRICECS QM: PART II, SECTION V (INSPECTION)

5.1.0 Incoming Inspection

Tridecs Corporation performs incoming inspection of raw materials, components, purchased parts, and manufacturing support services to ensure their compliance with specified requirements. Inspection criteria, methods, and acceptance criteria are documented, and inspection results are recorded for traceability and verification purposes.

5.2.0 In-Process Inspection

Tridecs Corporation conducts in-process inspections at critical stages of the manufacturing process to verify product conformity and identify any deviations or nonconformities. Inspection methods, frequency, and acceptance criteria are defined, and inspection records are maintained.

5.3.0 Final Inspection (ISO 8.6)

Tridecs Corporation performs a final inspection of finished products before their release for delivery. Final inspection includes verification of product characteristics, dimensions, and functionality against specified requirements. Acceptance criteria and records are maintained to ensure product quality and traceability.

5.4.0 Calibration and Maintenance

Tridecs Corporation maintains a calibrated measurement and monitoring equipment control system. Calibration activities are performed at scheduled intervals, and equipment is maintained in a calibrated and reliable condition. Calibration records are maintained as evidence of equipment compliance.

(SEE TRICECS QM: PART II, SECTION II)

PART I
SECTION VI

Training and Competence

6.1.0 Training Needs Identification (ISO 7.2)

Tridecs Corporation identifies training needs for employees involved in quality-related activities. Training requirements are determined based on job responsibilities, competency assessments, and changes in processes or technologies. Training needs are sometimes documented and addressed through appropriate training programs, however most often performed as 'On the Job' training, without documentation.

6.2.0 Training Program

Tridecs Corporation implements a training program to ensure that employees have the necessary knowledge, skills, and competencies to perform their assigned tasks effectively. Training activities are planned, conducted, and evaluated to verify the effectiveness of the training program.

(SEE TRIDECS: PRODUCTION TRAINING MANUAL (302-MAN-1000) ON NETWORK DRIVE)

6.3.0 Competence Evaluation

Tridecs Corporation assesses the competence of employees performing quality-related activities. Competence evaluations are conducted based on defined criteria, such as education, training, experience, and demonstrated skills.

(SEE TRIDECS: SHOP TRAINING RECORDS (302-REG-0001) ON NETWORK DRIVE)

PART I
SECTION VII

Supplier Management (ISO 8.4)

7.1.0 Supplier Evaluation and Selection

Tridecs Corporation evaluates and selects suppliers based on their ability to meet specified requirements. Supplier evaluation criteria include quality performance, delivery reliability, compliance with regulations, and overall supplier capabilities. Approved suppliers are periodically re-evaluated to ensure ongoing compliance.

(SEE TRIDECS: VENDOR ITAR CERTIFICATION FORM (500-FRM-1100), VENDOR NDA FORM (500-FRM-1200), AND SUPPLIER SELF ASSESSMENT FORM (500-FRM-1000), NETWORK DRIVE)

7.2.0 Supplier Performance Monitoring

Tridecs Corporation monitors and measures the performance of its suppliers to ensure continued compliance with quality requirements. Performance metrics, such as on-time delivery, product quality, and responsiveness, are tracked and reviewed. Actions are taken to address any identified supplier nonconformities or performance issues.

(SEE TRICECS QM: PART II, SECTION XIII)

7.3.0 Supplier Development

Tridecs Corporation collaborates with suppliers to improve their quality performance and capabilities. Supplier development initiatives may include training, process improvement support, and collaborative problem-solving to enhance the overall supply chain quality.

PART I
SECTION VIII

Product Design, Development and Release (ISO 8.3)

8.1.0 Responsibilities:

8.1.1 Design Team Responsibilities:

Typically performed at the quoting/estimating phase; Develops product design specifications based on customer requirements and conducts risk assessments and mitigation strategies.

8.1.2 Development Team:

Skilled craftsmen generate the design specifications into a prototype or final product. They are responsible for ensuring that processes are capable of meeting product requirements.

8.1.3 Quality Assurance:

Responsible for creating inspection plans and performing inspections and tests at various stages of product development. Verifies that the product meets specified requirements.

8.1.4 Management:

Reviews and approves design and development plans, and monitors progress and provides necessary resources.

8.2.0 Design and Development Process:

8.2.1 Initial Planning:

Management is responsible for defining the project scope, objectives, and constraints, then establishing a project schedule and allocating necessary resources.

8.2.2 Design Phase:

Develop product design specifications, considering customer requirements and relevant standards, then conduct risk assessments and implement mitigation measures. Finally, document design changes and obtain necessary approvals.

8.2.3 Development Phase:

Implement the design into a prototype or final product, verify and validate the product against design specifications. Address any non-conformities and document corrective actions.

8.2.4 Release Phase:

If any non-conformities exist, obtain customer approval or acceptance, complete final inspections, and testing, then prepare and maintain documentation for product **release.**

8.3.0 Document Control:

8.3.1 All relevant documents, including design specifications, change orders, and test records, shall be controlled to ensure the latest version is used.

8.4.0 Recordkeeping:

8.4.1 Maintain records of design and development activities, including test results, inspections, and customer approvals.

PART I
SECTION IX

Customer Satisfaction (ISO 9.1)

9.1.0 Customer Feedback

Tridecs Corporation encourages and collects customer feedback to evaluate customer satisfaction and identify areas for improvement. Customer feedback is documented, analyzed, and appropriate actions are taken to address any identified issues or opportunities.

9.2.0 Customer Complaints

Tridecs Corporation has a documented procedure for handling customer complaints. Complaints are acknowledged, investigated, and resolved in a timely manner. Root cause analysis is performed, and corrective actions are implemented to prevent recurrence and enhance customer satisfaction.

(SEE TRIDECS QM PART II, SECTION VI: NON-CONFORMING MATERIAL)

9.3.0 Customer Satisfaction Surveys (ISO 9.1)

Tridecs Corporation periodically conducts customer satisfaction surveys to obtain feedback on product quality, service, and overall customer experience. Survey results are analyzed, and actions are taken to address areas requiring improvement and enhance customer satisfaction.

(SEE TRIDECS' CUSTOMER SATISFACTION SURVEY: 000-FRM-0001)

PART I
SECTION X

Continuous Improvement (ISO 10.)

10.1.0 Monitoring and Measurement

Tridecs Corporation monitors and measures key performance indicators (KPIs) to assess the effectiveness of the QMS and identify opportunities for improvement. Data is collected, analyzed, and reviewed to ensure that quality objectives are met and to drive continual improvement.

(SEE TRIDECS INTERNAL AUDIT PLAN(S): 101-PRO-1100 & 000-PRO-1100, SEE ALSO TRIDECS KPI CHECKLIST AND RESULTS: 101-FRM-1010 & 101-FRM-1020 (2024 LINK))

10.2.0 Analysis of Data (ISO 10.3)

Tridecs Corporation analyzes data collected from various sources, including customer feedback, internal audits, and nonconformities, to identify trends, patterns, and areas for improvement. Data analysis supports decision-making, risk assessment, and the identification of improvement opportunities.

(SEE TRIDECS MANAGEMENT REVIEW PROCEDURE (101-PRO-1000), NETWORK DRIVE)

10.3.0 Corrective and Preventive Actions (ISO 10.2)

Tridecs Corporation implements a systematic approach for addressing nonconformities, root causes, and opportunities for improvement. Corrective actions are taken to eliminate identified problems, while preventive actions are implemented to prevent potential issues from occurring.

(SEE TRIDECS QM: PART II, SECTION VI)

10.4.0 Management Review (ISO 9.3)

Tridecs Corporation conducts regular management reviews of the QMS to ensure its continued suitability, adequacy, and effectiveness. Management reviews assess the achievement of quality objectives, the performance of processes, and the need for improvement. Actions resulting from the management review are communicated and implemented.

(SEE TRIDECS MANAGEMENT REVIEW PROCEDURE (101-PRO-1000), NETWORK DRIVE)

PART II
SECTION I

THE QUALITY MANAGER

1.1.0 Reports directly to the President of Tridecs Corporation.

1.2.0 Interprets all quality related customer specifications and ensures conformance.

1.3.0 Coordinates First Article, In-process & Final Inspections with QC personnel.

1.4.0 Maintain a digital directory of inspection reports and certifications for all items shipped.

1.5.0 Coordinates with operators and the Production Manager concerning anything found to be non-conforming.

1.6.0 Coordinates communication between Tridecs Corporation's MRB and applicable supplier/customer for corrective and preventative action to be taken for rejected parts to ensure that non-conforming conditions do not repeat.

1.7.0 Coordinates calibration of all measuring instruments, test equipment and gauges used to inspect any product.

1.8.0 Periodically review the Quality Manual for accuracy and relativity and rewrite or update as needed. All changes, updates and/or improvements must be reviewed and approved by the MRB.

1.9.0 Maintains the Directory of Controlled Quality Manual Holders.

PART II
SECTION II

CALIBRATION AND GAUGE CONTROL PER ANSI Z540.3

Calibration and gauge control maintenance according to ISO-10012 and ANSI Z540.3 is accomplished by the following outlined procedures:

2.1.0 The Quality Department calibrates all tools used for inspection purposes to master gauge blocks every twelve months to ensure consistent accuracy. The master gauge blocks used for internal calibration will be sent to be calibrated every twelve months.

2.1.1 All tools and gauges shall have a label with an identification number, date of last calibration and date of next calibration.

2.1.2 All measuring tools and gauges verified in house are calibrated at a temperature of 68° to 72° Fahrenheit.

2.1.3 If a tool is found to be inaccurate before its scheduled calibration date, it will be re-calibrated and re-certified if possible or decommissioned.

2.1.4 All standards used to calibrate measuring tools, gauges and test equipment shall be kept in the Quality Department restricted to use only by authorized quality personnel.

2.1.5 Tests and Inspections performed by Quality personnel will be done using only gauges and tools which have a current calibration certification sticker.

2.2.0 A current Gauge Calibration Record (Exhibit K) file shall be maintained to reflect the calibration of all tools and gauges belonging to the Quality Department.

2.2.1 The Gauge Calibration Record file shall include the type of measurement standard used to verify a fixture, tool or gauge and all corresponding information on the calibration label.

2.2.2 Calibration records will be kept for a minimum of 5 years.

2.3.0 Production personnel measurement tool or gauge calibration and certification will be performed by the Quality Department upon request.

2.3.1 If any measurement tool or gauge belonging to production personnel is found to be inaccurate, the Quality Department will notify the respective owner and provide associated measurement data so that appropriate action can be taken.

2.3.2 Employee’s personal tools shall be considered 'For Reference Only', unless indicated otherwise by a valid certification record.

2.4.0 Calibration of Coordinate Measuring Machines (CMMs) and Micro-Hites will be performed annually by a qualified service technician.

2.4.1 Calibration stickers on CMMs and Micro-Hites will be replaced annually after re-calibration.

2.4.2 Calibration certification records for CMMs will be kept on file in the Quality Department.

2.5.0 Granite surface plates used for inspection purposes will be maintained and certified annually by a qualified service technician.

PART II
SECTION III

INCOMING & OUTGOING MATERIALS CONTROL

3.1.0 All incoming materials, products, processes or services purchased in compliance with each contract shall be inspected first in accordance with the contract requirements, second in accordance with shop routing if it contains special instructions.

3.1.1 Incoming material inspections shall include visual comparisons of packing slips against purchase orders and test certificates against required specifications.

3.1.2 Dimensional inspections shall be performed on incoming materials when the complexity of the product procured necessitates such actions.

3.1.3 All incoming raw materials must have a Material Tag (Exhibit M) with the following information listed:

A. Customer Name
B. Tridecs Corporation Job Number
C. Tridecs Corporation Material PO Number
D. Material Type
E. Quantity
F. Size

3.1.4 All items received shall be entered in Tridecs Corporation's ERP system. All related documents will be received and distributed in accordance with the 'Materials Processing Procedure' Section 5.

3.1.5 Chemical and Physical composition for materials, products, processes, and services are provided to all customers where applicable.

3.2.0 Accepted incoming materials will be placed in the assigned stock area. Material will be held pending production release.

3.3.0 All non-conforming incoming materials shall be segregated pending disposition by the Materials Review Board. A Non-Conforming Material Report (NCMR - Exhibit G) shall be completed and submitted to the appropriate parties along with a Supplier Corrective Action Request (SCAR - Exhibit H), when deemed necessary by the MRB.

3.3.1 All rejected materials will be impounded by the Materials Manager or the Quality Control department until the SCAR has been returned with the written instructions and authorized signature of the Supplier or Customer, or an MRB decision dictates the use of the impounded material.

3.3.2 Rejected materials will be routed according to the completed SCAR.

3.3.2 A copy of the SCAR and/or NCMR will be added to the relative job file, and a digital copy stored in Quality Control's records.

3.3.3 A log of Corrective Action Reports will be maintained by the Quality Control Department, residing on Tridecs network using 8D (Exhibit I).

3.5.0 Services and supplies for purposes of general commercial operation shall be procured by Tridecs Corporation approved sources.

3.5.1 Procurement from customer approved sources shall be made in accordance with all contract specifications.

3.6.0 Customer's contracts outline requirements and specifications for the completion of their requested products. Tridecs Corporation's Purchase Orders must contain the customer's relative requirements and specifications when submitting to all sub-tier suppliers.

3.6.1 Tridecs is to maintain traceability of all raw material provided to our Sub-tier Suppliers, in accordance with the 'Materials Processing Procedure' Section 7.

3.6.2 The Quality Manager will arrange for a Customer Source Inspection at Tridecs Corporation and/or Sub-tier Suppliers when or as required.

PART II
SECTION IV

SHOP ROUTING (ISO 8.5)

4.1.0 Shop routing is generated by the Planning Department for all manufacturing operations.

4.1.1 Shop routing shall include:
- A. Material type and size.
  - i. Relative PO number for material lot traceability.
- B. Inspection Points.
- C. Operator process controls.
- D. Date and signature recorded upon completion of each line.
  - i. Conforming quantities denoted where applicable.

4.1.2 Revisions to the Shop Routing Sheet (Exhibit L) must be made by an authorized manager; provisions will be made to alert customers to these changes as required by Tridecs' outstanding quality agreements.

4.1.3 Shop routing information will be kept on file in the Data Base and/or in the Planning Department's Part Master File and kept for a minimum of 5 years.

PART II
SECTION V

INSPECTION (ISO 8.3)

5.1.0 First Article Inspections shall be performed at the first part of every operation indicated on the Routing Sheet.

5.1.1 First Article Inspection Reports (Exhibit C) for production runs shall be performed by the Quality Department. Inspection shall be completed in accordance with ANSI/ASQ Z1.4 reflecting positive identification of who performed the inspection.

5.1.2 No production runs shall be executed until First Article Inspection has been completed and found to be acceptable.

5.2.0 After First Article Inspection acceptance, In-process Inspections shall be performed by the Quality Department if determined to be necessary by the Quality Manager.

5.2.1 If in-process inspection is deemed necessary, the Quality Manager will indicate on the applicable shop routing operation line the required frequency (via IPQC stamp).

5.2.2 In Process Inspection Reports (Exhibit D) include the following information:

A. All pertinent job information (Job number, PO, etc.)
B. Frequency of inspection
C. Number of pieces to inspect
D. Number of pieces rejected
E. Description of any non-conforming
F. Date of Inspection
G. Positive ID of Inspector

5.2.3 If unprecedented variation is detected during In-process Inspection, an analysis of the issue will be conducted jointly by the Production and Quality departments.

5.3.0 All items rejected by First Article or In Process Inspections shall be clearly identified.

5.3.1 All rejected items or any portion thereof may be moved along with remaining product lot to be used as setup pieces in subsequent operations.
5.3.1.1 When these non-conforming parts are used in setup, they must be clearly marked and segregated from the conforming material (ex. painted with red Dykem).

5.3.1.2 When a part is non-conforming, but can be repaired, it will be marked (painted with blue Dykem) and processed accordingly.

5.4.0 All finished products shall be moved to the Quality Department for Final Inspection per direction of the Routing Sheet.

5.4.1 Final Inspection Reports (Exhibit E) shall be filed in the Quality Assurance Department by customer PO, job number and Quantity with positive ID of the Inspector.

5.4.2 Unless requested otherwise by customer contract, Tridecs' final inspection sampling will be determined by the Quality Manager.

5.4.3 A Certificate of Compliance (Exhibit F) shall be issued with all products.

5.5.0 One set of Inspection Stamps will be issued to each authorized Quality personnel. The Quality Department consists of a Quality Manager and one or more Inspectors.

5.5.1 The following Inspection Reports shall be signed and stamped either by an inspector or the Quality Manager:

A. First Article Report
B. In-process Inspection Report
C. Final Inspection Report

PART II
SECTION VI

NON-CONFORMING PRODUCTS (ISO 8.7)

6.1.0 Throughout the manufacturing process, non-conforming products can be classified as either internal or sub-tier.

6.1.1 Internal non-conforming products (FAI, IPI, or FI rejects) are first reported to and evaluated by the Quality Manager and Operations Manager to determine the appropriate course of action (scrap, rework, etc.).

6.1.1.1 Products which are scrap and are not needed as set-ups will be bagged and issued a red tag (Exhibit J). These materials will be held in the Quality Department for one year prior to being permanently discarded.

6.2.0 (ISO 8.4) Any products received from sub-tier suppliers which do not conform to contract specifications shall be reported on a Non-Conforming Materials Report (NCMR) and Corrective Action Request (CAR) by the Quality Department and sent to the applicable supplier contact.

6.2.1 All rejected products will be placed under the control of the Quality Department until the proper written instructions are received and documented

6.2.2 The Corrective Action Log (CAPA) will be maintained using '8D Manager' and be performed in accordance with the 8D Manager Manual, by any authorized personnel (Level 1).

6.2.3 The above stated reports (NCMR & CAR) must be approved by the Quality Manager and Operations Manager prior to distribution to the proper departments or sub-tier suppliers. When the Corrective Action Request (CAR) is returned, it is reviewed by the Quality Manager and Operations Manager for approval.

6.2.4 The corrective and preventative actions are formally documented and recorded in 8D Manager. A copy of the 8D report is sent to the sub-tier supplier.

6.3.0 The Material Review Board (MRB) is charged with the responsibility of review and disposition of non-conforming product and material. The MRB is composed of: The President, Operations Manager, and Quality Manager. There are three options open to the MRB for the disposition of non-conforming material or product:

A. Rework
B. Accept by customer concession
C. Scrap

6.3.1 The MRB is also responsible for the review and maintenance if the Quality Manual. The Quality Manual is reviewed annually by the MRB to ensure that Tridecs and its personnel are complying with all requisites. All revisions, additions and deletions must be reviewed and determined to be acceptable by the MRB prior to formal update.

PART II
SECTION VII

PACKAGING AND SHIPPING CONTROL

7.1.0 The Materials Manager prescribes and oversees all packaging procedures. The Materials Manager is responsible for ensuring that periodic inspection of packaged products (per contract specifications: Test reports, special samples, and/or special shipping instructions) is completed prior to final shipment.

7.1.1 Packaging instructions are outlined in Tridecs' Packaging Specifications procedure.

7.1.2 All products shall be packaged in a manner preventing physical damage, deterioration and/or substitution.

7.1.3 Packaged products shall be clearly marked identifying receiving customer and/or part numbers where applicable.

PART II
SECTION VIII

CONTRACT REVIEW AND CONTROL (ISO 8.1, 8.2)

8.1.0 Contracts are received by the Administrative Department.

8.2.0 Tridecs' database file is aligned to the contract requirements by the Administrative Assistant.

8.2.1 All Purchase Order numbers, terms, delivery schedules and contract revision levels shall be verified by the Planning Department and forwarded to the Materials Manager for review of special contract requirements.

8.2.1.1 Special contract requirements will be included on shop routing by the Materials Manager where applicable (this process shall be pursuant with Section 4 of the 'Materials Processing Procedure'.

8.2.2 The Purchase Order shall be set up in accordance with the ‘Job Setup Procedure.'

8.4.0 The original copy of the contract shall be maintained in a master file by Administration.

8.5.0 A duplicate of the contract shall be filed in the Quality Department for product review and Quality Control purposes.

8.6.0 All records of contracts and routers shall be kept for a minimum of five (5) years.

8.7.0 Design revisions and specification changes shall be documented on all drawings and accompanying work orders with effective date of change and identification of the authorized personnel who generates the change.

8.7.1 If a revision or alteration is made to a live process document or customer drawing, it must be verified per the ‘Authorized Personnel’ procedure.

8.7.2 Unit Conversions may be performed on a customer’s print (for manufacturability) when done in accordance with the 'Unit Conversion' procedure.

8.8.0 Obsolete drawings and files shall be segregated into a clearly marked ‘Obsolete’ folder within the part Master File.

8.9.0 The Quality Manager shall be notified of any changes in contract specifications.

8.10.0 For purposes of confidentiality, if requested by the customer, proprietary documents and parts can be maintained in a secure location.

PART II
SECTION IX

CUSTOMER FURNISHED MATERIAL (ISO 8.4)

9.1.0 All material furnished by the customer shall be handled in the following manner:

9.1.1 Complete visual inspection upon receipt of material to verify no damage occurred during transit and that the proper material was received per accompanying purchase order.

9.1.2 Inspections to be done periodically to ensure adequate storage conditions and to guard against damage from handling and deterioration during storage.

9.1.3 Functional testing is to be completed before and/or after installation as required by contract to determine satisfactory operation.

9.1.4 Upon receipt of the material, verification of quantity and identification must be recorded on the relative job router.

9.1.5 Materials Manager coordinates the storage, maintenance and distribution of all customer furnished materials.

PART II
SECTION X

DAMAGED CUSTOMER FURNISHED MATERIAL

10.1.0 Tridecs Corporation shall report to the customer any customer furnished material that is damaged as received or malfunctions during or after processing. Tridecs Corporation shall determine and record probable cause and necessity for withholding material from use.

10.1.1 The appropriate customer representative will be contacted for disposition.

PART II
SECTION XI
SUPPLIER MANAGEMENT

11.1.0 Supplier Onboarding

11.1.1 Selection and Documentation

Tridecs evaluates potential suppliers based on their ability to provide the required services and meet Tridecs' quality standards. Suppliers selected for onboarding are required to complete the necessary documentation, including a signed Non-Disclosure Agreement (NDA) and any applicable regulatory documentation.

11.1.2 Supplier Information Database

Tridecs maintains a supplier information database to track essential details of each supplier, including contact information, services provided, and relevant documentation. The database also includes information about the approved suppliers, their performance history, and any corrective actions taken.

11.2.0 Performance Monitoring

11.2.1 Reject Rate

Tridecs monitors the reject rate of supplied products or components to assess supplier quality performance. Reject rate is calculated by dividing the number of rejected products or components by the total number of products or components received from the supplier over a specific period. The reject rate is regularly reviewed to identify any trends or recurring issues that may require corrective actions.

11.2.2 On-Time Delivery

Tridecs tracks the delivery performance of suppliers to evaluate their ability to meet agreed-upon delivery schedules. Though no on-time delivery reports are visible, Tridecs can still monitor delivery performance based on internal records, customer feedback, or direct communication with the supplier. In cases where on-time delivery issues arise, Tridecs promptly addresses the concerns with the supplier and collaborates to find appropriate solutions.

11.4.0 Corrective Actions and Improvement (ISO 10.2)

11.4.1 Corrective Actions

In cases where supplier performance does not meet the established metrics, Tridecs initiates corrective actions to address the issues. Corrective actions may include supplier communication, performance improvement plans, additional training, or performance-related agreements.

11.4.2 Continuous Improvement

Tridecs encourages suppliers to continually improve their performance and collaborate on enhancing quality and delivery capabilities. Tridecs may provide feedback, share best practices, or offer support to suppliers in implementing improvement initiatives.

11.5.0 Supplier Performance Records

11.5.1 Documentation

Tridecs maintains records of supplier performance evaluations, including reject rate data, performance reviews, and any corrective actions taken. These records serve as a historical reference for assessing the long-term performance of suppliers.

11.6.0 Continuous Communication

11.6.1 Supplier Feedback

Tridecs actively seeks feedback from suppliers regarding their experience working with Tridecs, including any suggestions for improvement. Supplier feedback is considered valuable in maintaining effective supplier relationships and fostering mutual growth.

11.6.2 Performance Communication

Tridecs communicates performance results and feedback to suppliers to keep them informed about their performance and any improvement areas. Open and transparent communication enables collaboration and alignment toward shared quality objectives.

11.7.0 Supplier Development

Tridecs Corporation collaborates with suppliers to improve their quality performance and capabilities. Supplier development initiatives may include training, process improvement support, and collaborative problem-solving to enhance the overall supply chain quality.

PART II
SECTION XII

FACILITY MAINTENANCE, REPAIRS AND CLEANLINESS

12.1.0 Tridecs Corporation's designated 'Critical Manufacturing' and 'Critical Operating' equipment should be maintained as recommended by the manufacturer.

12.2.0 Tridecs Corporation's facilities should be maintained as 'pest free' by a professional pest control organization (preferably one ISO 9000 certified). These controls should include a perimeter spray for ants (and other insects if needed), and rodent traps.

PART III
SECTION I

REVISIONS TO TRIDECS' QUALITY MANUAL

DATE	DESCRIPTION	REVISIONS
02/05/87	Original Design	1.1
12/09/88	Add routing sheet	2.1
12/12/88	Add organization chart	2.2
12/20/89	Compliance to MIL-I-45208A	3.1
02/15/90	Additions to Westinghouse	4.1
02/19/93	Lockheed Audit - Add Section IV	5.1
06/30/94	Change in Management Designations	6.1
03/31/95	Rewrite verbiage of entire manual.	7.1
06/07/95	Redesign Forms & Add To Disk	7.2
10/02/96	Revised Forms and Updated Disk (Windows - 95)	8.1
05/12/97	Procedures Rewrite & Added New Forms	9.1
06/12/98	Procedures change (1.2.7, 5.5.0, 8.6.0) Retention.	10.1
06/16/98	Reference to revisions changed	10.2
07/15/98	Page numbering system changed	10.3
07/17/98	Page Format and font type changes	10.4
03/10/99	Documentation Revisions-Upgrade to Windows 98	11.1
04/25/00	Documentation Revisions/index changes	12.1
05/09/01	Review Board & Revision Pages Changes	13.1
07/31/01	Revised Several Forms in Forms Section of the Manual	13.2
02/13/02	Reviewed and revised forms Corrective Action Request, Gauge Control Record and Non-Conforming Material Report	14.1
02/14/02	Revised and corrected verbiage per compliance Audit in Section I through XI of Part I	14.2
02/27/02	Revised Page Format and Type Style	14.3
04/16/02	Changed Title Page and E-Mail format	14.4
09/25/18	Procedures Rewrite & Added New Forms	14.5
10/31/18	Added CA Log Method (Section 6.1.1.1)	14.6
11/07/18	Amended Appendix & Misc. Rewrites	14.7
08/03/20	Comprehensive Update	15.1
08/06/20	Updated FAI/IPI/FIR/CoC Form Exhibits	15.2
06/09/21	Updated Exhibit A mapping	15.3
07/02/21	Revised Section III	15.4
03/08/2023	Added document number footer and updated Tridecs graphic	15.5
05/23/2023	Major Revision to reflect ISO9001 requirements	16.0
01/10/2024	Minor changes and cleanup	16.1
06/13/2024	Minor changes and cleanup	16.2

PART III
SECTION II

APPENDIX
EXHIBITS (A) THROUGH (L)

Tridecs Corporation

Organizational Chart

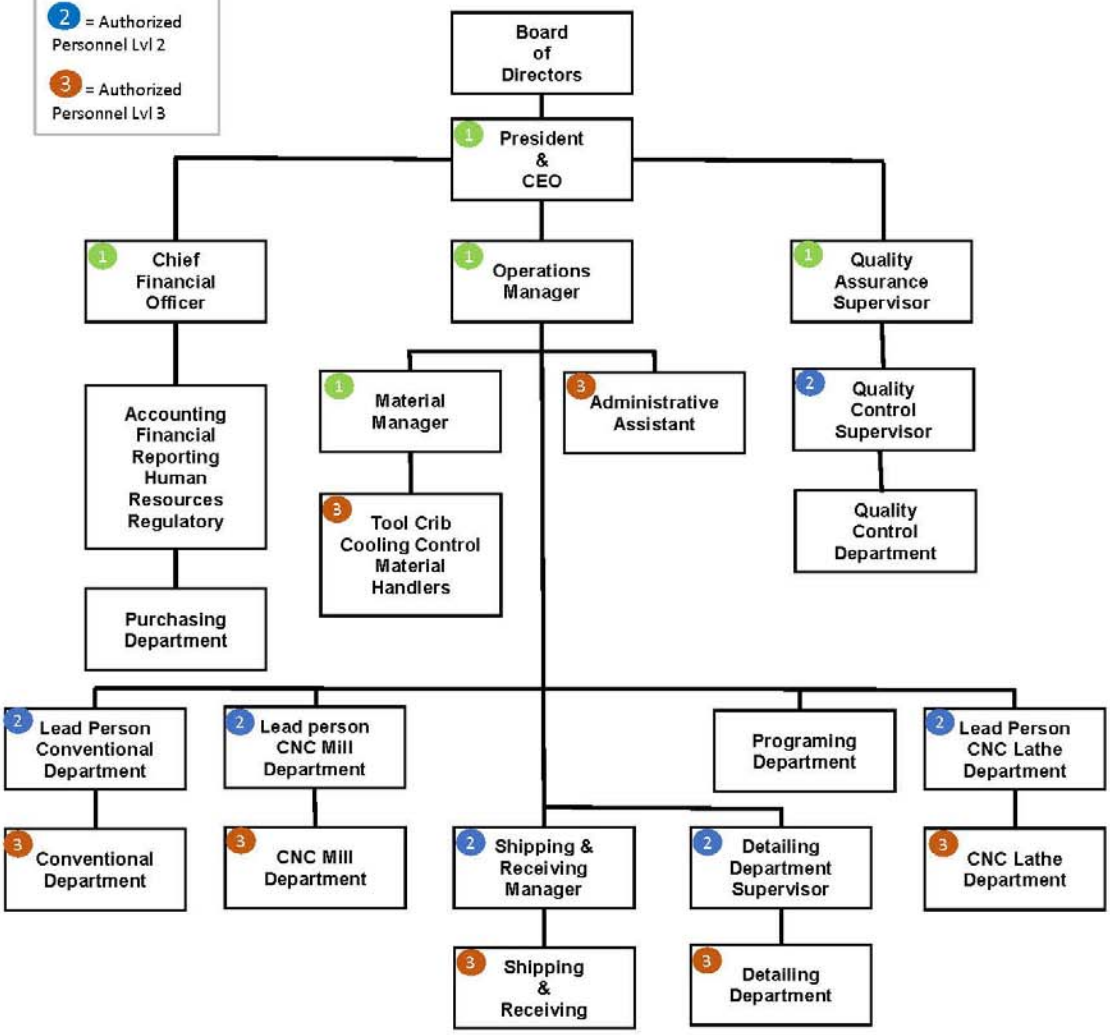


Exhibit A

Exhibit B

Authorized Personnel

When changes are decidedly necessary to revise or improve a process or process document, or to redline or convert the units of a customer's prints, the proper authorization channels should be followed to ensure the validity of the requested change(s). The approver must initial and date the document.

I. Individuals permitted to generate and approve any change

President/CEO
Operations Manager
Quality Manager
Materials Manager
Purchasing Manager

II. Individuals who require approval from a Level I to generate a change

Production Lead (Machinist Level III)
Quality Lead
Other Department Lead or Manager

III. Individuals who require, at minimum, approval from a Level II to generate a change

Machinist Level II and below
CNC Operator
QC Inspector
Detailer/Finisher
Shop Helper
Shipping Clerk
Administrative Assistant

Training and Classifications

Exhibit C

Tridecs
CORPORATION
Prototype & Production Machining
3513 Arden Rd. Hayward, CA 94545

FIRST-ARTICLE INSPECTION

TOLERANCES	
Units	
☐ Inch.	
☐ Metric	
.x	±.X
.xx	±.XX
.xxx	±.XXX
.xxxx	±.XXXX
Finish	0
Angles	±X.X°

Customer: 0	**P.O. Number:** 0	**Job Number:** 0	**Lot Number:** 0
Part Name: 0	**Part Number:** 0	**Part Revision:** 0	**FAI Date:** 8/6/2020

The below signature indicates that all characteristics are accounted for and meet drawing requirements or are properly documented for disposition.

Inspected by / Date Inspected:

Bubble No.	Page	Zone	Print Specifications & Dimensions	Measurements	Designed Tooling	Non-Conformance	Comments
1	0	0	0				
2	0	0	0				
3	0	0	0				
4	0	0	0				
5	0	0	0				
6	0	0	0				
7	0	0	0				
8	0	0	0				
9	0	0	0				
10	0	0	0				
11	0	0	0				
12	0	0	0				
13	0	0	0				
14	0	0	0				
15	0	0	0				
16	0	0	0				
17	0	0	0				
18	0	0	0				
19	0	0	0				
20	0	0	0				
21	0	0	0				
22	0	0	0				
23	0	0	0				
24	0	0	0				
25	0	0	0				
26	0	0	0				
27	0	0	0				
28	0	0	0				
29	0	0	0				

Tridecs
CORPORATION
Prototype & Production Machining
3513 Arden Rd. Hayward, CA 94545

IN-PROCESS INSPECTION

TOLERANCES	
Units	
☐ Inch.	
☐ Metric	
.x	±.X
.xx	±.XX
.xxx	±.XXX
.xxxx	±.XXXX
Finish	0
Angles	±X.X°

Customer: 0			**P.O. Number:** 0		**Job Number:** 0		**Lot Number:** 0	
Part Name: 0			**Part Number:** 0		**Part Revision:** 0		**IPI Frequency:**	
The below signature indicates that all characteristics are accounted for and meet drawing requirements or are properly documented for disposition.								
Inspected by / Date Inspected:								
Bubble No.	**Page**	**Zone**	**Sample # →**	0	0	0	0	0	0	0
			Print Specifications & Dimensions	**Measurements**						
1	0	0	0							
2	0	0	0							
3	0	0	0							
4	0	0	0							
5	0	0	0							
6	0	0	0							
7	0	0	0							
8	0	0	0							
9	0	0	0							
10	0	0	0							
11	0	0	0							
12	0	0	0							
13	0	0	0							
14	0	0	0							
15	0	0	0							
16	0	0	0							
17	0	0	0							
18	0	0	0							
19	0	0	0							
20	0	0	0							
21	0	0	0							
22	0	0	0							
23	0	0	0							
24	0	0	0							
25	0	0	0							
26	0	0	0							
27	0	0	0							

Tridecs
CORPORATION
Prototype & Production Machining
3513 Arden Rd. Hayward, CA 94545

Date: _____

TOLERANCES	
Units	
☐ Inch.	
☐ Metric	
.x	±.x
.xx	±.xx
.xxx	±.xxx
.xxxx	±.xxxx
Finish	
Angles	±x.x°

FINAL
INSPECTION REPORT

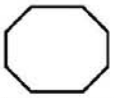
Job Number: _____

Customer Name: _____ **Purchase Order Number:** _____

Lot #	
Lot Size	
Sample Size	

Part Name: _____ **Part Number:** _____ **Rev.** ____

Inventory Pull	☐ No	☐ Yes	*Qty:*	
Job #:			*Lot#:*	
P.O #:				

Lot Disposition: 

No.	Page	Zone	Print Specifications & Dimensions	Measurements	Accepted	Rejected	Comments
001							
002							
003							
004							
005							
006							
007							
008							
009							
010							
011							
012							
013							
014							
015							
016							
017							
018							

Inspected by: _____ **Signed off by:** _____ **Signature:** _____

Document #:	600-QCFOR-FIR100	Rev.: 6	Title:	Final Inspection Report	Date:	07/31/2020

Exhibit E

Tridecs
CORPORATION
Prototype & Production Machining

CERTIFICATE OF COMPLIANCE

This certificate confirms that all materials listed herein meet the test requirements prescribed by our customer specifications

Customer: _____ Purchase Order: _____

Part Number: _____ Rev: _____ Part Name: _____

Job Number: _____ Lot Number: _____

Lot Size: _____ Sample Size: _____

QC Inspector: _____ Date: _____

- [x] Inspected in accordance with ASME Y14.5M - Final Inspection.
- [x] Material, processes and packaging are RoHS3 compliant.
- [ ] Material country of origin is DFARS #252.225-7014 compliant.
- [ ] First Article Inspection performed per AS9102.

Supplier certifications included: * **Yes** [x] **No** [ ]

** If yes, please see attached Supplier Certifications*

3513 Arden Road, Hayward, CA. 94545-3907 - Tel.: 510-785-2620, fax.: 510-785-3146

Exhibit F

Tridecs
CORPORATION

NON-CONFORMING MATERIALS REPORT

DATE ISSUED _____ JOB # _____ NCMR # _____ PO # _____

VENDOR ☐ IN-HOUSE ☐ LOT # _____ LOT SIZE _____ DATE RECEIVED _____

QC EMPLOYEE _____ SUPPLIER _____

MATERIAL DESCRIPTION _____

INSPECTION CRITERIA / PROBLEMS FOUND: PRINT ☐ PROCESS SPEC. ☐ OTHER _____

ITEM	QTY INSPECT.	QTY NC	INSPECTION CRITERIA	PROBLEMS FOUND
1.				
2.				
3.				
4.				
5.				

INSPECTOR NAME	INSPECTOR SIGNATURE	DATE	MFG. DATE	FIRST ARTICLE	IN PROCESS	FINAL INSPECTION

DISPOSITION

HAVE PARTS BEEN REWORKED? YES ☐ NO ☐

QUANTITY _____ QTY .RTV _____ QTY. RWK _____ QTY. SCRAPPED _____

QTY. CONFORMING _____ QTY. NON-CONFORMING _____ QTY. USE AS IS _____ COST OF REWORK/SCRAP _____

VENDOR CORRECTIVE ACTION REQ. ☐ INTERNAL PROCESSING REQ. ☐ DOCUMENTATION REQ. ☐ ECR# _____

SUPPLIER CORRECTIVE ACTION REQUIREMENT/INSTRUCTIONS: _____

TRIDECS CORPORATION INTERNAL USE ONLY

INTERNAL CORRECTIVE ACTION REQUIREMENT/ INSTRUCTIONS: _____

MRB APPROVAL / AUTHORIZATION

OPERATIONS MANAGER: _____ DATE: _____

QUALITY CONTROL: _____ DATE: _____

Exhibit G

Tridecs
CORPORATION

CORRECTIVE ACTION REQUEST

SUPPLIER: _____ INSPECTOR: _____ DATE: _____

_____ PHONE NUMBER: _____

_____ FINDING: _____ OF _____

_____ RESPONSE DUE DATE: _____

DESCRIPTION OF FINDINGS:

ROOT CAUSE:

CORRECTIVE MEASURES:

SCHEDULED COMPLETION DATE: _____

SUPPLIER MANAGEMENT APPROVAL: _____ **TITLE:** _____

NOTES

Exhibit H

Tridecs
CORPORATION
Prototype & Production Machining

CORRECTIVE ACTION

CA NUMBER: | JOB NUMBER:
TYPE: | RMA NUMBER:
CUSTOMER PO: | ISSUED BY:

START DATE: | CUSTOMER PN: | OWNER:
CUSTOMER: | SAMPLE SIZE: 0 | D1 TEAM MEMBERS:
CONTACT: | DEFECT QUANTITY: 0 | D8 CONGRADUATE:

CUSTOMER PROBLEMS:

D2 - COMPANY'S FINDINGS: **CUSTOMER FAILURE LOCATION**

D3 CONTAINMENT: **D6 VERIFICATION**

	Item	Owner	Date	Done?	Verified By	Verified Date
▶	1			☐		
	2			☐		
*	0			☑		

Exhibit I

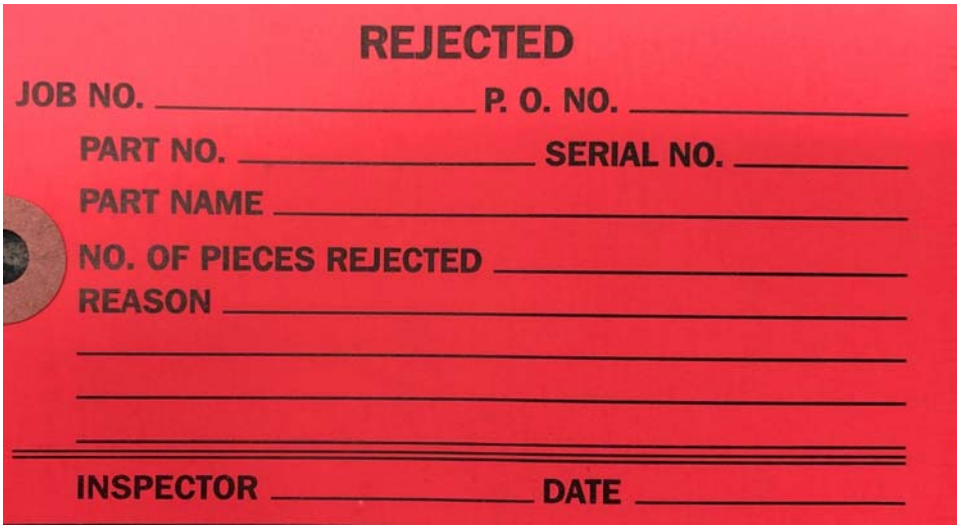


Exhibit J

Exhibit K

Tridecs
CORPORATION
Prototype & Production Machining
3513 Arden Rd. Hayward, CA 94545

Gauge Calibration Records(QC)								Inspection interval: Bi-Annual		
Department	Sub Devision	Tool Serial Number	Description	Method	Cal. Range	Results	Pass/Fail	Date Inspected	Next Inspection	Inspector Name
(Ex.) QC01	(Ex.) Inspector01	(Ex.) 123456	(Ex.) 0-6" Calipers	(Ex.) Gage Blocks	(Ex.) .100" - 6.000"	(Ex.) .100" 1.000" 3.000" 6.000"	Pass	05/11/11	08/11/12	S. Schenk
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										
QCC600										

Tridecs

SHOP ROUTING SHEET

P3
Job Priority

☐ Mat Supplied ☐ Heat Treat ☐ Paint ☐ Hardware ☐ Plating ☐ Grind ☐ Lap ☐ EDM ☐ Misc

P/N :		REV :		JOB #:	
ALT. P/N:		DUE DATE :		QTY:	
CUSTOMER :		DESCRIPTION:		P.O. #:	
SPLIT LOT #:				Special Requirements	
QTY TO RUN:				☐ FAI ☐ ITAR ☐ NADCAP	
MATERIAL:					

		Q/In:Q/Out	Cycle Time	DATE / COMPLETED BY
10 -	REVISION VERIFIED AGAINST P.O., ELECTRONIC DOCUMENTS	:	:	
20 -	MATERIAL SPECS	:	:	
30 -	MATERIAL CERTIFICATION#:	:	:	
40 -	SAW:	:	:	
50 -		:	:	
60 -		:	:	
70 -		:	:	
80 -		:	:	
90 -		:	:	
100 -		:	:	
110 -		:	:	
120 -		:	:	
130 -		:	:	
140 -		:	:	

Notes:

Exhibit L

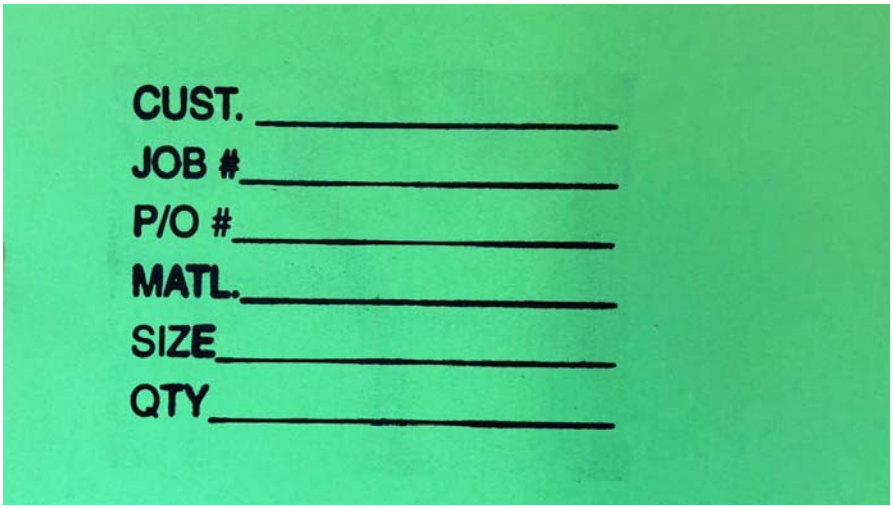


Exhibit M