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REVISION HISTORY

SEC	REV	CHANGE	DATE	AUTHORITY
ALL	A	NEW	11/19/03	Thomas Murphy
ALL	B	General Review + Update	5/4/05	Thomas Murphy
ALL	C	General Review + Update	5/1/08	Thomas Murphy
ALL	D	Review SNL, NQA, and HS audits	6/9/09	Thomas Murphy
ALL	E	Review and revised to AS9100C	3/23/10	Thomas Murphy
ALL	F	Added 7.1.1, .2, +.3, Project, Risk, and Config. Mang.	9/27/10	Thomas Murphy
ALL	G	Removed "service" from 7.5.1 added 7.5.1.3	10/25/10	Thomas Murphy
ALL	H	Removed "sold at competitive prices" from Quality Policy.	7/26/11	Thomas Murphy
ALL	J	General Review and update. Add VP title and revise authority	9/12/13	Thomas Murphy

1.0 SCOPE

INTRODUCTION

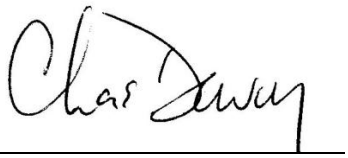
EVANS CAPACITOR COMPANY has developed this quality management system to satisfy the needs of its customers and to improve management of the company. The quality system complies with the international standard AS9100C for the design, manufacture, and distribution of capacitors for use in military, commercial, and industrial applications.

The *EVANS CAPACITOR COMPANY* has manufacturing facilities located in Sanford, ME and East Providence, RI.

The manual is divided into sections corresponding to quality system requirements of the AS9100C standard. Each section starts with a statement expressing the general principles and commitment to implement specific actions pertaining to the quality system element that is the subject of the section. The statement is followed by a general and brief procedure outlining how these activities are carried out and referencing the operating procedures that provide more detailed descriptions.

The purpose of this manual is to document the company's quality system, to instruct and guide employees whose actions affect product quality, and to inform the company's customers what controls are implemented to assure product quality.

President: 
David Evans

CEO: 
Charles Dewey

Quality Manager: 
Thomas A. Murphy

4.0 QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

EVANS CAPACITOR COMPANY has a documented and implemented quality management system that satisfies the requirements of AS9100C. The quality system is documented in the quality policy and objectives, quality manual, operating procedures, work instructions, process procedures, company technical standards, national and international standards, and the production and quality plans. Implementation of the quality system is regularly audited and reviewed. All personnel are aware of, and have access to, relevant QMS documentation and changes. *EVANS CAPACITOR COMPANY* does not outsource any processes.

4.2 Documentation Requirements

4.2.1 General – The scope of the quality system is defined in the following documents:

- Quality Policy and Objectives,
- Quality Manual **(Level 1)**,
- Operating Procedures **(Level 2)**,
- Work instructions, process procedures and internal standards **(Level 3)**,
- Forms and Records; media used to capture data or information resulting from procedures or work instructions **(Level 4)**,
- Applicable national and international standards,
- Product technical specifications and drawings,
- Production and quality plans

The documents collectively define a quality system that complies with AS9100C.

4.2.2 Quality Manual

The quality manual is divided into sections corresponding to quality system requirements of the AS9100C standard. The purpose of the quality manual is to document the company's quality system, to instruct and guide employees whose actions affect product quality, and to inform the company's customers what controls are implemented to assure product quality.

4.2.3 Control of Documents

The purpose and scope of quality system documents and records are defined. All documents and data are reviewed and approved prior to issue. Appropriate documents are available at locations where they are intended to be used. All documents are legible and readily identifiable. Unreadable and unidentifiable documents are removed and replaced. Obsolete documents are removed from points of use. Evans Capacitor Company will coordinate document changes with customers and/or regulatory authorities in accordance with contract or regulatory requirements. The Quality Manager is responsible for coordinating, enforcing and auditing the document and data control related activities.

4.2.3.1. Quality System Documentation

Quality system documentation comprises the following types of documents:

- Quality Manual
- Operating procedures
- Work instructions and process procedures
- Standards and other reference material
- Product drawings and specifications
- Production and quality plans
- Corrective and Preventive Action Request (CAR/PAR) forms

4.2.3.2 The purpose, scope and responsibility for controlling each type of document are defined in procedures.

4.2.3.3. Document Approval and Issue

Documents changes may be initiated by anyone in the organization but may only be issued by an authorized department according to procedure. All documents are reviewed and approved prior to issue.

4.2.3.4 Document Placement

Documents are distributed to personnel and locations where they are used. When appropriate and relevant, documents display a distribution list. Document placement is regulated according to procedure.

4.2.3.5 Document Changes

Document changes are reviewed and authorized by the same authority that issued the original document. Revised portions of documents are distributed with a change brief, and obsolete documents are removed and destroyed or archived per procedure. A master list specifying the latest issues and revisions of its documents is maintained according to procedure.

4.2.3.6 External Documents

Documents of external origin are identified and stored in controlled locations.

4.2.4 Control of Records

Quality records demonstrate achievement of the required quality and effective operation of the quality system. The records are identified, indexed and stored in a suitable environment to minimize deterioration. All records are legible and readily identifiable. Records are normally stored by the department that is responsible for their establishment. Retention periods for quality records are defined.

4.2.4.1 Procedure

The activities of identification, collection, indexing, access, filing, storage, maintenance and disposition of quality records are governed by documented procedures. In addition, other procedures exist that call for establishing of a record, explain how it should be done, who is responsible, and what rules apply for its filing and storage. Records created by or retained by suppliers will be the supplier's responsibility to control.

4.2.4.2 Scope

All quality records collected and stored by *EVANS CAPACITOR COMPANY*, their storage locations and their retention periods are specified in documented procedures.

4.2.4.3 Identification and Storage

Records are identified to the product, person or activity involved. When relevant, they are signed and dated. The indexing system facilitates retrievability. Records are normally filed by the department that initially established the record. Records are stored in a dry and clean environment.

4.2.4.4 Record Review

Records shall be available for review by customers and regulatory authorities in accordance with contract or regulatory requirements.

Reference Document(s): QSP 4.2 Series

5.0 MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

EVANS CAPACITOR COMPANY is committed to providing our customers with the highest quality products. Our customers have been and will continue to be our number one priority. Our objective is to anticipate tomorrow's needs by improving procedures, equipment, and employee education today. *EVANS CAPACITOR COMPANY* is also committed to meeting all applicable statutory and regulatory requirements and the communication of these requirements to all employees.

5.2 Customer Focus

EVANS CAPACITOR COMPANY ensures that all customer contracts, customer purchase orders, and requests for quotations are reviewed to assess if the customer's requirements are adequately defined and are well understood, and if the company has the capability to meet the contract requirements. It is *EVANS CAPACITOR COMPANY's* goal to not only meet all customer requirements, but to exceed customer expectations.

5.3 Quality Policy

EVANS CAPACITOR COMPANY recognizes the need for the highest quality products and continuous process improvement. We will make these improvements consistent with our product requirements and customer inputs. Our customers have been and will continue to be our number one priority. Our objective is to anticipate our customer's needs by improving procedures, equipment, and employee education today. This commitment ensures that our customers will receive defect free products that are delivered on time.

David Evans
President

Charles Dewey
CEO

The President and CEO of *EVANS CAPACITOR COMPANY* have formulated the quality policy and objective. This policy and objective is explained and discussed at the general orientation training given to all existing and new employees. The policy is also posted in conspicuous locations throughout the company.

5.4 Planning

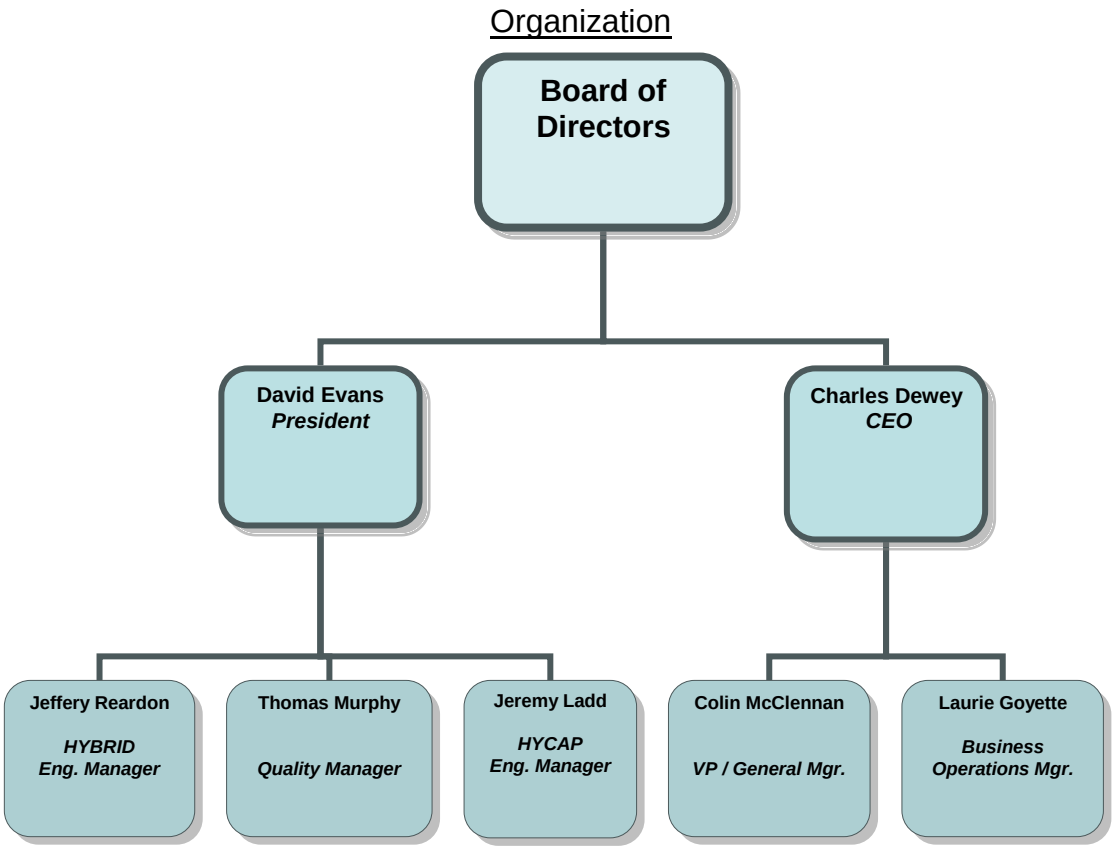
5.4.1 Quality Objectives

We will make these improvements consistent with our product requirements and customer inputs. Our objective is to anticipate our customer's needs by improving procedures, equipment, and employee education today. This commitment ensures that our customers will receive defect free products, delivered on time, and sold at competitive prices. It is *EVANS CAPACITOR COMPANY's* goal to not only meet all customer requirements, but to exceed customer expectations.

5.4.2 Quality Management System Planning

EVANS CAPACITOR COMPANY performs quality planning on all products through the use of the Quality Manual, Quality Procedures, and Work Instructions/Process Procedures.

5.5 Responsibility, Authority, and Communication



5.5.1 Responsibility and Authority

5.5.1.1 President

- Formulates the quality policy,
- Initiates and supervises the quality system,
- Provides resources necessary to maintain the system,
- Conducts management reviews of the quality system,
- Provides product specifications for product briefs to customer specified requirements,
- Monitors the quality of competitors,

Authority: In conjunction with CEO, Full authority

5.5.1.2 CEO (Sales/Marketing)

- Financial Authority,
- Provides Production and Business Operations Oversight
- Provides resources necessary to support production,
- Conducts management reviews of the quality system.
- Negotiate customer contracts,
- Generates customer quotations,
- Represents company and quality system to customers,
- Conducts contract reviews and quotations
- Provides customer liaison and service,
- Handles customer complaints.
- Advertises and promotes company's products emphasizing their quality aspects,
- Publishes functional specifications of products and associated services (product briefs),
- Risk identification, assessment, management of actions to mitigate risks, and acceptance of risks.

Authority: In conjunction with President, Full authority

5.5.1.3 Business Operations Manager (Purchasing/Accounting/HR)

- Selects and qualifies suppliers and subcontractors,
- Prepares and approves purchasing documents,
- Monitors and assesses supplier performance,
- Conducts initial training of all employees,
- Hires all personnel and administers benefit package.
- Credit and Collections,
- Accounting,

Authority: Place/Change Purchase Orders, Hire Personnel, Payroll, Accounts Receivable and Payable

5.5.1.4 Hybrid and Hycap Engineering Managers

- Research and Design of new products,
- Initiates design reviews,
- Verifies and tests the designs,
- Documents designs,
- Performs production engineering,
- Qualifies new suppliers and components,
- Collects field performance and reliability data.

Authority: Design, Material, and Process Approval

5.5.1.5 VP / General Manager (Production, Facility, Shipping)

- Production planning and control,
- Defines manufacturing personnel qualification requirements,
- Generates customer quotations,
- Represents company and quality system to customers,
- Conducts contract reviews and quotations
- Provides customer liaison and service,
- Handles customer complaints.
- Implements measures to motivate personnel,
- Conducts training and reviews the training needs of all employees,
- Determines production personnel, equipment and material requirements,
- Controls and monitors processes,
- Maintains production equipment and Facility, administrates storage areas
- Controls handling, storage, preservation, and transportation of all materials.

Authority: Hire, Train, and Discipline Manufacturing Personnel. Determine schedule for production, and material requirements. Process Approval, Product Approval, and Shipping

5.5.1.6 Quality Manager

- Establishes, maintains, and reports on the quality management system,
- Audits implementation of the quality system,
- Initiates requests for, and follows up on, corrective actions,
- Carries out supplier quality surveys and audits,
- Monitors supplier quality performance,
- Performs inspections and testing in accordance with the quality plans,
- Handles nonconforming products,
- Maintains inspection records,
- Defines workmanship standards,
- Maintains calibration records,
- Coordinates document control activities,
- Maintains and calibrates measuring and test equipment
- Information Technology

Authority: Material, Product, and Process Approval. Quality System Approval

5.5.2 Management Representative

EVANS CAPACITOR COMPANY appoints as the Management Representative, the Quality Manager. The Quality Manager has the authority and responsibility to report on the performance of the Quality System, to ensure that the quality management system is maintained, that its efficiency is continuously improved, and that the system always complies with the requirements of the AS9100C standard. The Quality Manager is also responsible for the promotion of the awareness of customer requirements throughout the company.

5.5.3 Internal Communication

The President and CEO shall ensure that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the quality management system. Interaction (and communication) between process is shown in the Table 1 on the next page.

Table 1: Process Interaction Matrix

Quality Management Systems Process Interaction Matrix	Management Review	Customer Service & Satisfaction	Product Realization	Document Control	Purchasing	Control of Measuring & Test Equipment	Control of Nonconf. Product	Corrective Action	Control of Records	Internal Audits	Training	Preventive Action
	Input	Input	Inpu	Inpu	Inpu	Inpu	Inpu	Inpu	Inpu	Inpu	Inpu	Inpu
Management Review Output		**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Improvements and Resource Needs**	**Record of MR Improvements Resource Needs**	**Improvements and Resource Needs**	**Improvements Training Req. Resource Needs**	**Improvements and Resource Needs**
Customer Service & Satisfaction Output	Cust. Req. Cust. Feedback Cust. Satisfaction Cost of Quality		Cust. Req. Cust. Approvals	(No direct interaction)	(No direct interaction)	(No direct interaction)	Customer Concessions for NMR (where Applicable)	Customer Complaints	Customer Feedback, Complaints, Returns	(No direct interaction)	Requirements for training of cust. service and satisf.	Customer Feedback
Product Realization Output	Process perf. & product conf. data. Characteristics + trends of process and products	(No direct interaction)		Chg in prod req. Design + Devel. chgs Work Instruct.	Product Requirements	Specified monitoring & measuring devices	Problems identified	Problems identified	Records of product realization process	(No direct interaction)	Req. for qual. of prod. personnel and prod. realiz.	Potential problems identified
Document Control Output	Provide control of req. docs. Changes that affect QMS	Provide control of req. docs.	Provide control of req. docs. + dwgs		Provide control of req. docs.	Provide control of req. docs.	Provide control of req. docs.	Provide control of req. docs.	Provide control of req. docs. Obs docs dwgs to retain	Provide control of req. docs.	Provide control of req. docs. Req. for DC procedure	Provide control of req. docs.
Purchasing Output	Supplier Performance data	(No direct interaction)	(No direct interaction)	(No direct interaction)		Arrange for & qual. of ext. cal. sources	(No direct interaction)	(No direct interaction)	Records of supplier evals + req. actions	(No direct interaction)	Req. for training of purchasing procedure	(No direct interaction)
Control of Measuring & Test Equipment Output	(No direct interaction)	(No direct interaction)	Calibrate, verify, & adjust of MMD for production	(No direct interaction)	(No direct interaction)		(No direct interaction)	(No direct interaction)	Records of cal. & verification	(No direct interaction)	Req. for training of calibration procedure	(No direct interaction)
Control of Nonconf. Product Output	Cost of quality	Info on NMR req. customer concession	(No direct interaction)	(No direct interaction)	(No direct interaction)	(No direct interaction)		Info on nonconform.	Records of NMRs, CARs, & any cust. conc.	(No direct interaction)	Req. for training of NMR procedure	(No direct interaction)
Corrective Action Output	Status of CA and actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.	Actions to prevent reoccurrence of nonconform.		Actions to prevent reoccurrence of nonconform. Records of CA	Actions to prevent reoccurrence of nonconform.	Acts to prevent reoccur. Req. for training of CA procedure	Preventive actions ident. by CA process
Control of Records Output	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable	Records stored, protected, & readily retrievable		Records stored, protected, & readily retrievable	Records stored, prot., & retriev. Req for train of C of R proced.	Records stored, protected, & readily retrievable
Internal Audits Output	Audit results. Verify conform. to QMS req.	Verify conformance to quality system reqs.	Verify conformance to quality system reqs.	Verify conformance to quality system reqs.	Verify conformance to quality system reqs.	Verify conformance to quality system reqs.	Prod. NC detected in IA. Verify conform. to QMS reqs.	NC detected in Int Audits. Verify conform. to QMS reqs.	Records of IA Verify conform. to QMS reqs.		Auditor crit. & resp. Req. for train of IA proc. Verify conform.	Potential nonconf. found in Int. Audits. Verify conform.
Training Output	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide training to satisfy needs	Provide train to satisfy needs Records of ed., train, skill, +exp	Provide training to satisfy needs		Provide training to satisfy needs
Preventive Action Output	Status of PARs and rec. for improve. Actions to prevent occurrence	Actions to prevent occurrence of Nonconform.	Act. from pot prob id in D&D Acts to prevent occurr of NC.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurr of NC. Records of PAs.	Actions to prevent occurrence of Nonconform.	Actions to prevent occurr of NC. Req. for train PA proc.	

5.6. Management Review

5.6.1 General

The company's executive management reviews the quality system at least once a year. The purpose of the review is to assess the effectiveness and continuing suitability of the quality system. The Quality Manager is responsible for scheduling and conducting the reviews.

5.6.2 Review Input

The review shall include (as applicable), but not be limited to;

- A review of the quality policy and objectives.
- The status and review of open corrective and preventative actions.
- The results of any Internal Audits, including external, third party audits as applicable shall be reviewed; moreover, performance of audits against schedule shall be reviewed.
- A report on customer returns, complaints, trends, and any preventative and corrective actions assigned.
- A status of plant financial objectives and progress thereof.

5.6.2 Review Output

Conclusions of the reviews are recorded. An action team list shall be generated from the meeting minutes and shall be used to track progress and closure of assigned items. Detailed rules for scheduling, conducting and recording the reviews are provided in the Management Review Procedure.

Reference Document(s): QSP 5.6

6.0 RESOURCE MANAGEMENT

6.1 Provision of Resources

The President, CEO, and VP/GM have the responsibility and authority to determine and provide the resources (in the form of personnel, equipment, infrastructure, and environment) needed to 1.) Implement and maintain the quality management system and continually improve its effectiveness, and 2.) Enhance customer satisfaction by meeting customer requirements.

6.2 Human Resources

6.2.1 General

The President, CEO, and VP/GM have the responsibility and authority to determine and provide the personnel resources needed for product design and production, quality system implantation and maintenance, and customer service and satisfaction.

6.2.2 Competence, Awareness, and Training

EVANS CAPACITOR COMPANY identifies training needs of all personnel and provides the required training. Personnel performing specific tasks are qualified. Records of personnel qualifications and training are maintained.

6.2.2.1 Training Needs

The competence and awareness of all employees are assessed once a year by the Business Operations Manager to determine if their qualifications are adequate and if they need to be supplemented by additional training.

6.2.2.2 Training

The company provides new employee orientation training to all employees. Other training is provided as required.

6.2.2.3 Training Record

The Business Operations Manager maintains records of all internal and external training provided to employees.

6.3 Infrastructure

The President, CEO, and VP/GM are responsible for determining, providing, and maintaining the infrastructure required to 1.) Implement and maintain the quality management system and continually improve its effectiveness, and 2.) Enhance customer satisfaction by meeting customer requirements. Infrastructure includes:

a) buildings, workspace, and associated utilities,
b) process equipment (both hardware and software), and
c) supporting services (such as transportation and communication).

6.4 Work Environment

The President, CEO, and VP/GM are responsible for determining, providing, and ensuring the maintenance of the work environment needed to achieve conformity to product requirements.

Reference Document(s): QSP 6 Series

7.0 PRODUCT REALIZATION

7.1 Planning of Product Realization

7.1.1 Project Management

EVANS CAPACITOR COMPANY ensures that the processes needed for product realization are planned and developed. In planning product realization, the company will determine the following, as appropriate:

- Quality objectives and requirements for the product,
- Processes, documents and resources required for the product,
- Required verification, validation, monitoring, inspection, and testing
- Criteria for product acceptance,
- Records needed to provide evidence that the processes and product meet requirements.

7.1.2 Risk Management

EVANS CAPACITOR COMPANY evaluates all risks during contract review and prior to the acceptance of any purchase order. The CEO is responsible for Risk Management.

Risk is evaluated in the following areas:

1. Business risk (financial, environmental, etc)
2. Performance Risk (Product offering through Production & delivery)
3. Facilities Risk (damage to building, equipment, data, etc)

CEO, President and VP/GM define risk in these areas, through:

1. Probability of Occurrence
2. Consequence of Occurrence
3. Acceptable level of consequence

CEO & VP/GM Outline action plan to:

1. Quantify Risks based on above
2. Develop process and procedures to mitigate risk
3. Determine performance against acceptable level of Risk
4. Report to management review

7.1.3 Configuration Management

EVANS CAPACITOR COMPANY has established and maintains a configuration management process appropriate to our products as outlined in procedure QSP 7.2-1, Customer Related Process.

7.2 Customer Related Processes

7.2.1 Determination of Requirements Related to the Product

The CEO and/or VP/GM are responsible for determining product and order requirements and for determining the company's ability to meet the requirements.

7.2.2 Review of Requirements Related to the Product

The CEO and/or VP/GM are responsible for the product requirement reviews. The reviews comprise verification that the customer's requirements, obtained in writing (email, mail, or fax) are adequately defined and documented, are well understood, and that the company has the capacity to meet the contract requirements. Verbal agreements are not construed as approval or authorization to proceed.

Customer orders indicating ECC part numbers will be satisfied with the current revision ECC product. Customer orders specifying the customer's part number will require the customer's current drawing and will be satisfied with product built and certified to the customer's part number and drawing requirements.

7.2.3 Customer Communication

The CEO and/or VP/GM are responsible for communicating product information to the customer, and obtaining feedback (including complaints) from the customer and resolving any differences between the customer requirements and the company's capability.

The CEO and/or VP/GM are responsible for notifying customers of any changes that affect product quality, such as changes in: ownership, manufacturing location, process, product, or inspection.

The CEO and/or VP/GM are responsible for notifying customers of any product impact caused by gages found out-of-tolerance by 25% or greater.

The CEO and/or VP/GM are responsible for notifying customers within 24 hours of verification of suspect nonconforming product shipped.

The CEO and/or VP/GM are responsible for notifying customers within two (2) business days of any changes in certification / registration / accreditations / or major audit findings.

Reference Document(s): QSP 7.2-1, Customer Related Process

7.3 Design and Development

7.3.1 Design and Development Planning

EVANS CAPACITOR COMPANY shall prepare plans and procedures for the design and development activity. The documentation describes and/or references the activities, and defines organizational responsibility for them. All activities shall be assigned to qualified personnel equipped with adequate resources to perform the function. Plans and procedures shall be updated accordingly as the design evolves.

All organizational and technical interfaces between the various departments, which input into the design processes, shall be defined and the necessary information documented, transmitted, and regularly reviewed.

7.3.2 Design and Development Inputs

Design and development input requirements relating to the product, including applicable statutory and regulatory requirements, shall be identified, documented, and their selection reviewed by President and CEO (and other affected departments as required) for adequacy. Any incomplete, ambiguous, or conflicting requirements shall be resolved with the customer prior to release of any design-input documentation. All design and development input shall take into consideration the results of any requirement review activities and similar designs (when available).

7.3.3 Design and Development Outputs

Design and development output shall be documented and expressed in terms that can be verified and validated against design input requirements. Design and development output shall:

- meet the design and development input requirements;
- provide appropriate information for purchasing and production;
- contain or make reference to product acceptable criteria; and;
- specify the characteristics of the product that are essential for its safe and proper use.

Design output documents shall be reviewed and approved by all functions prior to release.

7.3.4 Design and Development Review

At suitable stages, *EVANS CAPACITOR COMPANY* shall plan and conduct formal, documented reviews of the design and development. Participants at each design review shall include representatives of all functions concerned with the design and development stage(s) being reviewed, as well as other personnel as required. Records of the results of the reviews and any necessary actions shall be maintained.

7.3.5 Design and Development Verification

EVANS CAPACITOR COMPANY shall perform design and development verifications at defined stages within the development process to ensure that the design outputs meet the design input requirements. The design verification measures shall be recorded and maintained by Engineering. In addition to conducting the design review, design verification activities shall include, but not be limited to:

- performing alternative calculations;
- comparing the new design with a similar proven design, if available;
- undertaking tests and demonstrations; and;
- reviewing the design and development stage documents before release.

7.3.6 Design and Development Validation

Design and development validation shall be performed to ensure that product conforms to defined customer needs and/or requirements. Design validation follows successful design verification and is normally performed under defined conditions. Moreover, the validation is normally performed on final product, but may be necessary in earlier stages prior to product completion. Multiple validations may be performed if there are different intended uses.

7.3.7 Control of Design and Development Changes

All design and development changes and modifications shall be identified, documented, reviewed, and approved by authorized personnel before implementation.

Reference Document(s): QSP 7 Series

7.4 Purchasing

7.4.1 Purchasing Process

7.4.1.1 *EVANS CAPACITOR COMPANY* differentiates between suppliers, subcontractors, customer specified suppliers, and non-suppliers:
Suppliers are vendors who deliver their standard catalogue products.
Subcontractors are vendors who design and/or manufacture products from the company's drawings.
Customer Specified Suppliers are vendors specified on customer drawings or bill of materials.
Non-Suppliers are vendors who sell non-productive "shop" supplies or services.

7.4.1.2 The Purchasing department carries out assessments of Suppliers. Subcontractors are assessed jointly by Purchasing, Engineering, and Quality.

7.4.1.3 Quality performance of all Suppliers and Subcontractors is monitored. Suppliers and Subcontractors showing inadequate performance are asked to implement corrective actions and are discontinued if there is no improvement.

7.4.1.4 Purchasing maintains an Approved Supplier/subcontractor List.

7.4.2 Purchasing Information

The Purchasing department prepares purchasing documents. The documents clearly and completely describe ordered products. They include precise identification of the products, reference applicable standards and state quality requirements. The Business Operations Manager reviews and approves all purchasing documents prior to release.

7.4.3 Verification of Purchased Product

7.4.3.1 *EVANS CAPACITOR COMPANY* reserves the right to verify purchased product at the subcontractor’s premises. In the event this right is exercised, purchasing documents shall specify the verification arrangements and method of release.

7.4.3.2 *EVANS CAPACITOR COMPANY* customers are normally given the right to verify for themselves that the purchased products conform to specified requirements. Customer verification does not absolve *EVANS CAPACITOR COMPANY* from the responsibility to deliver a quality product.

Reference Document(s): QSP 7.4 Series

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

Production operations are planned and documented. Personnel performing complex or critical operations are provided with work instructions and workmanship criteria. Processes are controlled and performed in accordance with written procedures. Production and process equipment are regularly checked and maintained. Production areas are clean and provide a suitable working environment.

7.5.1.1 Production Plan - The production plan is specified on a traveling Production Instruction sheet prepared by the Production Control unit. The Production Instruction lists all production and inspection operations necessary to manufacture and verify a product.

7.5.1.2 Production Control - When complexity or importance of an activity warrants it, production personnel are provided with work instructions. Production equipment, processes, product characteristics and production environment are controlled and/or maintained in accordance with procedures.

7.5.1.3 Service - Not applicable. (Evans Capacitor Company's products are not serviceable.)

7.5.2 Validation of Processes for Production and Service Provision

EVANS CAPACITOR COMPANY shall validate any processes for production where the resulting output cannot be verified by subsequent monitoring or measurement. *EVANS CAPACITOR COMPANY* does not consider any of its processes to have a resulting output which cannot be verified by subsequent monitoring or measurement.

Evans Capacitor Company's products are not serviceable.

7.5.3 Identification and Traceability

Materials and products are identified by a part number correlated to corresponding drawings, specifications and other technical documents. Finished products are identified by part numbers, manufacturing date code, and unique serial numbers. Inspection status of a product is identified on the traveler to assure that only product that has passed inspection is used, installed or dispatched. Authority responsible for the release of conforming product is defined

7.5.3.1 Part and Product Identification - Purchased and manufactured materials are identified with company's internal part numbers assigned by the Engineering department. The part numbers provide for a correlation between a part and its technical documentation. Products that pass the receiving inspection are placed into stock. Products waiting for receiving inspection are held in the receiving area.

7.5.3.2 In-Process Inspection - Status of an in-process inspection is identified on the job traveler with operator initials.

7.5.3.3 Finished Product Identification - Products that pass the final inspection are considered finished product. Finished products are labeled with a part number, date code, and serial number to allow for traceability of product configurations.

7.5.3.4 Nonconforming Product - Products that fail any one of the three inspections are identified and segregated in a Nonconforming Material Area.

7.5.3.5 Records - The Quality department maintains the part number lists and associated technical documentation. The part number, date code and serial number are the key to correlation with its technical documentation and quality records.

7.5.4 Customer Property

7.5.4.1 Customer supplied products are handled in the same manner as other products purchased for incorporation into the supplies. When specified in a contract or customer purchase order, special handling instructions from customers will take precedent over standard procedures. Loss, damage or unsuitability of a customer's products is recorded and reported to the customer.

7.5.4.2 Customer supplied products are reviewed, inspected, tested, marked and stored in the same manner as other purchased products.

7.5.4.3 Loss or Damage - The customer is contacted in case of loss, damage, deterioration or unsuitability of products.

7.5.5 Preservation of Product

Methods and means of handling that prevent product damage and/or deterioration is provided in documented procedures. Receipt and dispatch to and from storage areas is controlled. The condition of stored products is assessed regularly. Packaging is specified and controlled. Products are protected prior to and during delivery.

7.5.5.1 Handling - The VP/GM is responsible for product handling and, in particular, ensuring that containers are adequate and clean, that equipment used for internal transportation of product is well maintained and operators are trained in use of the equipment, and that product is protected during production, storage and delivery.

7.5.5.2 Storage - The storage areas and their operation are the responsibility of the VP/GM. Only products that are properly identified and that have passed the mandatory inspections are authorized to enter and leave the storage areas. Periodically the storage areas are cleaned up and inspected to assess the condition of stock.

7.5.5.3 Packaging, Preservation, and Delivery - The Engineering and Quality departments specify methods of Packaging and Preservation. The specifications are communicated to the shipping personnel in the form of drawings, work instructions, and training. Packaging is designed for the intended means of delivery. After the final inspection, products are protected and stored in adequate conditions to prevent damage and deterioration. If delivery is specified, it is subcontracted only to pre-qualified shippers.

Reference Document(s): QSP 7.5 Series

7.6 Control of Monitoring and Measuring Devices

The required measurement's accuracy is known, and appropriate equipment is selected to perform the measurements. All measuring, process, and test equipment that is used to measure conformance to product specifications is calibrated with traceability to a national standard. Calibration certificates are maintained and the calibration status of measuring equipment is identified. The equipment is well maintained and its placement and use are controlled.

7.6.1 General

7.6.1.1 All activities related to this section of the quality system are regulated according to documented procedures.

7.6.2. Measurement Identification

7.6.2.1. The Engineering and Quality departments identify measurements and their required accuracy. Selection of suitable equipment to perform those measurements is the responsibility of the Quality department and will have a minimum 10:1 accuracy ratio.

7.6.3 Calibration and Maintenance of Equipment

7.6.3.1 All calibrations are performed with standards traceable to national standards and performed in compliance with ANSI/ISO/IEC 17025. Calibration stickers identify calibration status of equipment. Quality maintains a list of measuring and test equipment, providing identification and calibration status for each piece of equipment. Jigs, templates and patterns are checked regularly for accuracy. Measuring and test equipment is maintained to preserve its accuracy and fitness for use.

7.6.3.2 All equipment maintenance is performed according to manufacturer's recommended procedure.

7.6.4 Records

7.6.4.1 *EVANS CAPACITOR COMPANY* maintains records that provide evidence of control.

Reference Document(s): QSP 7.6 Series

8.0 MEASUREMENT, ANALYSIS, AND IMPROVEMENT

8.1 General

8.1.1 Inspection and testing are conducted when purchased productive materials and components are received, at significant stages of production, and prior to dispatch of finished products. The objective of inspections and testing is to verify conformance with specified requirements. Materials, components, and products are prevented from use, assembly and dispatch until the required inspections are completed. Records of inspections are established and maintained to evidence those products comply with stated requirements.

8.1.2 Where and when appropriate, statistical techniques are employed to verify the acceptability of process capability and product characteristics.

8.1.3 Process Analysis and Statistical Sampling

8.1.3.1 When required and directed by the Quality department, statistical techniques are employed in process analysis and statistical sampling. Personnel using statistical techniques are provided with charts, tables and other instructions in the use of the techniques.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

Customer satisfaction shall be measured through normal customer communication and surveys conducted by mail, web site, and phone conversation. All data and results will be reviewed and acted upon during Management Reviews.

8.2.2 Internal Audit

8.2.2.1 General

Comprehensive, planned and documented quality audits are conducted to verify that quality activities comply with planned arrangements, contract/safety regulatory requirements, and to determine the effectiveness of the quality system. Audits are scheduled based on the status and importance of the activity to be audited. Identified nonconforming conditions are brought to the attention of those responsible for the condition and a corrective action is requested.

8.2.2.2 Planning and Scheduling

The Quality Assurance Manager establishes an internal audit plan and schedule in accordance with documented procedures. Every activity and area is audited at least once a year, but more frequent audits may be scheduled if required.

8.2.3.3 Audit Team and Preparation for Audit

Only personnel independent of the audited activities are assigned to conduct an audit. Audits are prepared by a review of applicable standards and procedures, a review of quality records, and establishment of questionnaires and checklists. Selection of an audit team and the preparation activities are described in documented procedures.

8.2.3.4 Follow Up

When nonconforming conditions are identified, the manager responsible for the affected area or activity is requested to propose and implement a corrective action. Implementation and effectiveness of the action is verified by a follow-up audit.

8.2.3 Monitoring and Measurement of Processes

Comprehensive, planned and documented quality audits are conducted to verify that quality activities comply with planned arrangements, contract/safety regulatory requirements and to determine the effectiveness of the quality system. Where and when appropriate, statistical techniques are employed to verify the acceptability of process capability and product characteristics. When required and directed by the Quality department, statistical techniques are employed in process analysis and statistical sampling. When required, inspection plans shall be submitted for customer approval.

8.2.4 Monitoring and Measurement of Product

8.2.4.1 Receiving Inspection and Testing

a) It is *EVANS CAPACITOR COMPANY's* policy to purchase productive materials only from qualified approved suppliers. Receiving inspection consists of a visual inspection of the shipment, packing list, and Certificate of Conformance. All productive products require Certification by the supplier. Nonconforming products are segregated and are prevented from use in production.

b) All verification shall be in accordance with documented procedures.

First Article Inspection

8.2.4.2 In-process Inspection and Testing

First Article Inspections shall be performed as required in accordance with AS9102.

Production inspects, tests, and identifies product as required by documented procedures. In-process inspections are specified on a Production Instruction sheet accompanying a product during its manufacturing phases, on written instructions, or inspection plans. All inspections are carried out by the production/quality personnel. Product is held until the required inspection and tests have been completed.

8.2.4.3 Final Inspection and Testing

Quality shall ensure that all final inspection and tests have been carried out in accordance with documented procedures. Final inspections and tests are specified on a Production Instruction sheet accompanying a product during its manufacturing phases, on written instructions, or inspection plans. The quality personnel carry out all final inspections and tests. Product is held until the required final inspection and tests have been completed All finished products are subjected to the final inspection. Only those products that pass the final inspection are boxed and can be shipped.

8.2.4.4 Inspection and Test Records

EVANS CAPACITOR COMPANY maintains records that provide evidence that the product has been inspected and/or tested. These records shall show clearly whether the products has passed or failed the inspections and/or tests according to defined acceptance criteria. Where the product fails to pass any inspection and/or test, the procedures for nonconforming product shall apply. Records shall identify the inspection authority responsible for the release of product.

8.3 Control of Nonconforming Product

Nonconforming product is identified, documented, evaluated and prevented from being used or shipped. Responsibility for disposition of nonconforming product is defined and, when required, the customer is contacted for concession. Repaired or reworked product is reinspected and documented on the traveler.

8.3.1 Identification and Documentation

8.3.1.1 It is a firm policy of *EVANS CAPACITOR COMPANY* to identify and document all nonconformities, regardless of how insignificant they seem to be or how easily they can be repaired.

8.3.1.2 Documentation of nonconformity is made on the Nonconforming Material Report, following the rules provided in documented procedures. Nonconforming products are segregated in Nonconforming Material Areas.

8.3.2 Nonconformity Review and Disposition

8.3.2.1 The assembly technician may make the disposition decision for a nonconforming product when it is obvious that the product must be scrapped or re-graded, or if it can be repaired by a simple process without affecting its quality. In all other cases, it is the Material Review Board, comprised of Quality Manager together with the VP/GM, Business Operations Manager, Engineering Manager (and/or President) and CEO, that makes the disposition decision.

8.3.2.2 The disposition decision may be:

- Rework or repair,
- Accept as is,
- Re-grade, or
- Scrap.

8.3.2.3 When required, the customer is contacted for acceptance by concession of a nonconforming product.

8.3.2.4 Detailed rules for nonconformity review, making the disposition decision and recording these activities are provided in documented procedures.

8.3.3 Re-inspection

8.3.3.1 Repaired or reworked products are reinspected on the production line in accordance with procedures.

8.3.4 Records

8.3.4.1 Quality shall maintain records and ensure that all dispositions, conditions, requirements, and corrective actions required by the MRB are complete.

8.4 Analysis of Data

8.4.1 Evans Capacitor Company shall determine, collect, and analyze appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This shall include data generated as a result of monitoring and measurement and from other relevant sources.

8.4.2 Analysis of data shall provide information to, and be provided by:

- Customer Satisfaction – CEO
- Conformity to Product Requirements – Quality Manager
- Corrective and Preventive Action – Quality Manager
- Process Characteristics and Trends – VP/GM
- Supplier Performance – Business Operations Manager

Reference Document(s):

QSP 8.4 Series

8.5 Improvement

8.5.1 Continual Improvement

8.5.1.1 The company's executive management reviews the quality system at least once a year. The purpose of the review is to assess the effectiveness and continuing suitability of the quality system. The Quality Manager is responsible for scheduling and conducting the reviews.

8.5.1.2 Processes, work operations, quality records, service reports and customer complaints are analyzed to detect any sources of potential quality problems. Causes of nonconformities are investigated and corrective and preventive actions are requested to prevent recurrence. Controls are applied to ensure that corrective and preventive actions are implemented and that they are effective

8.5.2 Corrective Action

8.5.2.1 A corrective action will result from a customer complaint or report of a product nonconformance. These reports shall be collected via a Corrective Action Request (CAR) process. The CARs may be initiated by any customer or employee and submitted to the sales department. The sales department will maintain a documented process by which the complaints are compiled, analyzed, and corrective action initiated and tracked. This corrective action will address the root cause and application of controls to ensure its effectiveness. These corrective actions will be executed by those departments identified as the root cause source of the nonconformity. A report of the corrective actions taken will be reviewed by executive management.

8.5.2.2 Corrective actions will be "flowed-down" to suppliers when it is determined that the supplier is responsible for root cause and specific actions will be taken when timely and/or effective corrective actions are not achieved.

8.5.3 Preventive Action

A preventive action will result from information indicating a nonconformity within the operating process that affects quality. This information may be gathered by way of internal audits, quality records, yield shortfalls, customer complaints, or any other areas indicating process failures. These failures/shortfalls will be collected via the Preventive Action Request (PAR) system, administered by the quality department. The quality department will maintain a documented process by which the shortfalls are compiled, analyzed, and preventive action initiated and tracked. This preventive action will address the root cause and application of controls to ensure its effectiveness. A report of the preventive actions taken will be reviewed by senior management.

Reference Document(s):

QSP 8.5 Series