



Quality Manual

TESLA FOR ELECTRICAL SERVICES & Contracting CO. LTD.



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1. Introduction

TESLA has developed and implemented a quality management system in order to document the company's best business practices, better satisfy the requirements and expectations of its customers and to improve the overall management of the company.

This manual describes the quality management system, delineates authorities, inter relationships and responsibilities of personnel responsible for performing within the system. The manual also provides procedures or references for all activities comprising the quality management system to ensure compliance to the necessary requirements of the standard.

This manual is also used externally to introduce our quality management system to our customers and other external organizations or individuals. The manual is used to familiarise them with the controls that have been implemented and to assure them that the integrity of our quality management system is maintained and focused on customer satisfaction and continuous improvement.

2. History

TESLA ELECTRICAL SERVICES Company Ltd. (**TESLA**) is one of the Saudi Companies in TESTING & COMMISSIONING OF ELECTRICAL SUBSTATION field. It was established in 2011.

3. Scope

The International Organization Standard ISO 9001:2008 describes the requirements for a quality management system by addressing the principles and processes surrounding the design development and delivery of a general product or service. The activity covered by **TESLA** is for the provision of, testing and/or install Electrical Equipment.

The quality management system complies with all applicable requirements contained in ISO 9001:2008, covers the design and provision of all products and/or services, and encompasses all operations at our facility located at

- Dammam Office



4. Quality Management System

4.1 Introduction

TESLA has implemented a quality management system that exists as part of overall management system which has established, documented and implemented our quality policy and related processes for providing products and services which meet or exceed customer requirements, whilst satisfying the requirements of ISO 9001:2008.

TESLA has adopted the process approach by defining and managing process inputs, controls and outputs to ensure the desired results are achieved and by managing the interfaces between interrelated processes to ensure system effectiveness is maintained.

TESLA monitors, measures and analyses relevant processes and takes action to achieve planned results and ensures the continual improvement of our quality management system. Any outsourced process or activity is controlled as per applicable ISO 9001 requirements.

Specific responsibilities for, and the sequence and interaction of key quality management system processes are detailed in the quality procedures, some of which contain or reference deployment flow charts depicting the process or which is also described in the narrative of the procedure. Appendix A.2 describes the sequence and interaction of our organizational processes.

4.2 Documentation Requirements

4.2.1 General

This quality manual contains documented statements of our quality policy and quality objectives and references the documented procedures needed to ensure effective planning, operation and control of our key processes.

The level and type of quality management system documentation established for our business is continually reviewed to ensure it remains appropriate for the complexity of the interactions of our core processes and the competence of our employees. Quality management system documents and data exist in hard copy and electronic format.

The quality management system documentation includes this quality manual, quality procedures, forms and other internal and external documents and data needed to manage, perform or verify work affecting product quality. Any quality management system documentation which is utilized or generated is categorised into the following hierarchy:

Quality Management System Documentation Hierarchy:

Tier	Document Type	Purpose
1	Policy	Key system driver of process inputs and objectives; statement of corporate vision
2	Quality manual	Describes corporate approach and responsibilities for achieving quality
3	Procedures	Describe the methods required for process implementation
4	Work instructions	Describe the operating practices and controls of each process
5	Forms	Key system outputs; data, records, proof of conformance and evidence of verification



4.2.2 Quality Manual

This manual has been prepared to describe **TESLA's** quality management system; its associated procedures, and the processes needed to implement our quality policy in order to achieve our quality objectives. Each section of the manual makes reference to various procedures, forms and process maps relating to the requirements outlined in that section.

4.2.3 Document Control

All quality management system documents are controlled according to the Document Control Procedure (P001) which defines the process for:

- Approving documents for adequacy prior to issue
- Reviewing and revising as necessary and re-approving documents
- Ensuring that changes and current revision status of documents are identified
- Ensuring that relevant versions of applicable documents are available at points of use
- Ensuring that documents remain legible and readily identifiable
- Ensuring that documents of external origin are identified and their distribution controlled
- Preventing the unintended use of obsolete documents
- Ensuring that documents of external origin are identified and their distribution controlled

The company uses standard forms and a local area network computer system.

Documents which are controlled include but are not limited to the followings examples:

- Quality manual
- Procedures
- Records

Controlled documents are identified with a document name and document number:

- Procedures are prefixed P
- Forms are prefixed F
- Work instructions are prefixed W

A list of key quality management system documents; including all quality procedures, forms and other key quality management system documents is located in Appendix A.3.

Supporting documentation:

Ref	Title & Description
P001	Document Control Procedure

4.2.4 Control of Records

Records are established to provide evidence of conformity to the requirements specified by the standard, customer requirements and of the effective operation of the quality management system are formally controlled through the application of the Control of Records Procedure (P002).

Records which are controlled include but are not limited to:

- Corrective Action Reports



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- Management Review Reports
- Customer Complaints
- Calibration Records

Supporting documentation:

Ref	Title & Description
P002	Control of Records Procedure

5. Management Responsibilities

Top Management has the responsibility and authority for supporting the development and implementation of the quality management system, for ensuring that it remains relevant to the company's objectives, and the needs and expectations of customers whilst promoting an ethos of continual improvement.

Top Management and their direct reports are responsible for communicating the quality policy as well as the importance of meeting customer, statutory and regulatory requirements to employees within their respective Departments. They ensure the policy is understood and that it is applied to the daily work of the organization through the establishment of measurable goals and objectives.

Top Management is responsible for ensuring that the quality policy is appropriate for the goals of the business, that it promotes the continuing improvement of the effectiveness of the quality management system and that it is reviewed for continuing suitability.

All managers are responsible for communicating business plans and organizational goals within their respective Departments and reporting back to the organization on the performance and effectiveness of the quality management system.

5.1 Management Commitment

The General Manager of **TESLA** is committed to implementing and developing the quality management system and this commitment is defined by the quality policy located in Section 5.3.

We ensure that our quality policy is understood, implemented and maintained at all levels of the organization through printed distribution of our quality policy statement and through periodic management review of the quality policy statement and corporate level improvement objectives. In addition, our quality policy and objectives are communicated and deployed throughout the business via individual performance objectives established and reviewed during employee performance reviews.

All managers demonstrate their commitment to the development and improvement of the quality management system through the provision of necessary resources, through their involvement in the internal audit process and through their proactive involvement in continual improvement activities. Emphasis is placed on improving both the effectiveness and efficiency of key quality management system processes.

5.2 Customer Focus

TESLA strives to identify current and future customer needs, to meet their requirements and to exceed their expectations. Top Management ensures that the focus on improving customer satisfaction is maintained by setting and reviewing objectives related to customer satisfaction at management review meetings.



Top Management also ensures that customer requirements are understood and met. Customer requirements are understood, converted into internal quality requirements and communicated to appropriate personnel within the organization.

Customer complaints and other customer feedback is continually monitored and measured to identify opportunities for improvement. We continually look for other ways to interact directly with individual customers to ensure a proper focus to their unique needs and expectations is established and maintained.

5.3 Quality Policy

Top management ensures that the quality policy is communicated and understood by all employees at all levels of the organization through documented training, regular communication, and reinforcement during annual employee performance reviews.

Our quality policy statement acts as a compass in providing the direction and framework for establishing key corporate level performance measures and related improvement objectives as per Section 5.4.1. Top Management reviews the quality policy during management review meetings to determine the policy's continuing suitability.

5.4 Planning

5.4.1 Quality Objectives

Quality objectives are established to support our organization's efforts in achieving our quality policy and are reviewed annually for continuing suitability. Quality objectives are measurable and reviewed against performance goals during scheduled management review meetings.

1. Manage and control facilities, processes, quality systems and personnel to consistently and cost effectively produce products and furnish services that meet customer needs (Section 7.5.1)
2. Conduct operations in conformance with, or to exceed, all applicable laws and regulations of the jurisdictions in which we do business (Section 6.4)
3. Be committed to continuous process improvement (Section 8.5) by emphasising reduction of part-to-part variation and the elimination of all waste
4. Achievement of ZERO DEFECTS and 100% on time delivery (Section 7.5.1) performance

5.4.2 Quality Management System Planning

The quality system has been planned and implemented to meet our quality objectives and the requirements of Section 4.1 of ISO 9001:2008.

The quality planning process involves establishing and communicating our quality policy and objectives through issuance of this manual and its associated procedures. Accordingly, this manual constitutes our overall plan for establishing, maintaining and improving the system. For each instance of quality management system planning, the output is documented accordingly and changes are conducted in a controlled manner.

Our management review and internal audit processes ensure the integrity of our quality management system is maintained when significant changes are planned and implemented which affect key system processes.



5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

An organizational structure is defined in Appendix A.4. The organization chart shows the interrelation of personnel within the organization whilst job descriptions define the responsibilities and authorities of each role. Job descriptions and the organizational structure are reviewed and approved by General Manager for adequacy.

Members of Top Management are ultimately responsible for the quality of **TESLA's** products and services since they control the systems and processes by which conforming work is accomplished.

Top Management is responsible for business planning, development and communication of our quality policy, quality management system planning, the establishment and deployment of objectives, the provision of resources needed to implement and improve the quality management system and for undertaking management reviews.

All managers are responsible for execution of the business plan and the implementation of the policies, processes and systems described in this manual. All managers are responsible for planning and controlling quality management system processes within their area of responsibility, including the establishment and deployment of operational level objectives and the provision of resources needed to implement and improve these processes.

All employees are responsible for the quality of their work and implementation of the policy and procedures applicable to processes they perform. Personnel responsible for product quality have the authority to stop production to correct quality problems. Employees are motivated and empowered to identify and report any known or potential problems and to recommend related solutions the corrective/preventive action process.

5.5.2 Management representative

TESLA has appointed a Quality Management Representative with delegated responsibilities for ensuring that a compliant quality management system is established, implemented, and maintained; for promoting awareness of customer requirements throughout the organization; Section 5.5.3; and for ensuring that the performance of the quality management system is reviewed by Top Management for effectiveness, continuing suitability and the need for improvement; Section 5.6.

The Quality Management Representative has the following responsibilities:

- Ensure that processes needed for the quality management system are established and implemented
- Act as a liaison with external parties such as customers or auditors on matters relating to the QMS
- Report to top management on the performance of the quality management system
- Promote awareness of customer requirements throughout the organization
- Organizational freedom to resolve matters pertaining to quality
- Resolve matters pertaining to quality issues
- Promote initiatives for improvement

5.5.3 Internal Communication

TESLA communicates information regarding quality management system processes and their effectiveness through documented training, internal audit reports and continual improvement processes.

All managers and supervisors are responsible for establishing regular formal and informal communications as needed to convey to their employees the relevance and importance of their activities; typically this information is conveyed through team meetings and cross-functional improvement projects.

Communications regarding how employees contribute to the achievement of objectives is also conveyed and reinforced during employee performance reviews. **Supporting documentation:**

Ref	Title & Description
P003	Internal Communication Procedure



5.6 Management Review

5.6.1 General

Top Management conducts a management review meeting at least once a year to ensure the continuing suitability, adequacy, and effectiveness of our quality management system. The primary inputs reviewed include data that measures the conformance and performance of our quality management system and recommendations based on analysis of such data.

Conformance is primarily assured through internal audits and demonstrated through a review of audit results and our demonstrated ability to correct and to prevent problems.

Performance is primarily assured through the deployment of corporate and operational level objectives, and through a review of our demonstrated ability to achieve desired results.

The primary outputs of management review meetings are management actions taken to make changes or improvements to our quality management system and the provision of resources needed to implement these actions.

5.6.2 Review Input

Assessment of the quality management system is based on a review of information inputs to management review. These inputs can include the following:

- Planned changes that could affect the quality management system
- Process performance and product conformity
- Status of preventive and corrective actions
- Recommendations for improvement
- Company level quality data
- Customer feedback
- Results of audits

5.6.3 Review Output

During management review meetings, Top Management will identify appropriate actions to be taken regarding the following issues:

- Improvement of the effectiveness of the quality management system and its processes
- Improvement of product related to customer requirements
- Resource needs

The primary outputs of management review meetings are management actions taken to make changes or improvements to our quality management system and the provision of resources needed to implement these actions.

Responsibilities for required actions are assigned to members of the management review team. Any decisions made during the meeting, assigned actions, and their due dates are recorded on the management review presentation.

Supporting documentation:

Ref	Title & Description
P004	Management Review Procedure



6. Resource Management

6.1 Provision of Resources

During planning and budgeting processes and as needed throughout the year, Top Management determine and ensure that appropriate resources are available to implement and maintain the quality management system and to continually improve its effectiveness whilst enhancing customer satisfaction by meeting their requirements.

6.2 Human Resources

6.2.1 General

To ensure competence of our personnel, job descriptions have been prepared identifying the qualifications required for each position that affects product quality. Qualifications include desired requirements for education, skills and experience. Appropriate qualifications, along with required training, provide the competence required for each position.

6.2.2 Competence, Awareness & Training

All employees are trained on the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. The company operates a formal system to ensure that all employees within the organization are adequately trained to enable them to perform their assigned duties.

Qualifications are reviewed upon hire, when an employee changes positions or the requirements for a position change. The Human Resources Department maintains records of employee qualifications. If any differences between the employee's qualifications and the requirements for the job are found, training or other action is taken to provide the employee with the necessary competence. The results are then evaluated to determine if they were effective.

Top Management identifies emerging competency needs during management reviews; Section 5.6. Emergent competency needs are converted into job descriptions for the type and number of positions that need to be filled through internal or external recruitment.

Where possible; training is conducted in-house, although for more specialist skills, external seminars or courses are utilized. The effectiveness of training is evaluated. The company induction includes an introduction to the company's quality policy statement and objectives. Future training needs are identified as part of the Management Review process.

Training records are maintained to demonstrate competency and experience. Human Resources will review the training records annually to ensure completeness and to identify possible future training needs.

Training records are maintained in accordance with Section 4.2.4 and include as a minimum, the following information:

- Copies of certificates for any training undertaken to date
- Current Job Description
- Curriculum Vitae

Supporting documentation:

Ref	Title & Description
P005	Training and Awareness Procedure



6.3 Infrastructure

TESLA is responsible for planning, providing and maintaining the resources needed to achieve product conformance, including buildings, workspace and associated utilities; process equipment (hardware and software); and supporting services (such as internal transportation and material handling systems and communications systems).

The Chief Operations Officer (COO) has overall responsibility for managing our facilities and equipment maintenance programs which include:

- Transportation and material handling equipment management, maintenance and repair
- Process equipment management, maintenance and repair
- Facilities management, maintenance and repair
- Housekeeping/custodial services management
- Information systems maintenance and repair
- Production tooling management

Supporting documentation:

Ref	Title & Description
P006	Facilities Management Procedure

6.4 Work Environment

TESLA ensures that the factories, warehouses, offices and showrooms comply with relevant health and safety regulations e.g. personnel are issued with suitable personal protective equipment (PPE), risk assessments are carried on plant, material safety data sheets are retained for the various substances used in the manufacturing process.



7. Product Realization

7.1 Planning

TESLA has established documented quality plans and procedures that describe processes and controls to be applied and the records required. During this planning phase, management or assigned personnel will identify:

- The quality objectives and requirements for the product are developed for all new projects
- Verification, validation, monitoring, inspection and test requirements
- Processes, documentation and resources required
- Criteria for product acceptance
- Resources necessary to support operation and maintenance of the product
- Resources to support operation and maintenance of the product

The output of quality planning includes documented quality plans, resource requirements, processes, equipment requirements, procedures and design outputs.

Supporting documentation:

Ref	Title & Description
P007	Product Realization & Planning Procedure

7.2 Customer Related Processes

7.2.1 Determination of Requirements Related to Product

TESLA determines customer requirements before acceptance of an order.

Customer requirements include the following:

- Previous and current customer requirements which pertain to current part numbers being ordered
- Requirements not stated by the customer but necessary for specified use or known and intended use
- Statutory and regulatory requirements related to the product
- Requirements required for delivery and post-delivery activities
- Additional requirements determined by **TESLA**

7.2.2 Review of Requirements Related to Product

Prior to committing to the customer, **TESLA** has a process in place for the review of requirements related to the product. The review is conducted before the order is accepted.

The process ensures that:

- Product requirements are defined
- Contract or order requirements differing from those previously expressed are resolved
- **TESLA** has the ability to meet the defined requirements
- Records are maintained showing the results of the review and any actions arising



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- Customer requirements are confirmed before acceptance
- When product requirements are changed, the organization communicates changes to personnel and amends relevant documents

Supporting documentation:

Ref	Title & Description
P008	Contract Review Procedure

7.2.3 Customer Communication

In accordance with our commitment to exceed our customer's expectations, **TESLA** highlights effective customer communication as an essential element of customer satisfaction. Appropriate handling of customer communication will help to reduce customer dissatisfaction and in many cases turn a dissatisfying scenario into a satisfying experience.

The Customer Service, Sales and Marketing and Projects Departments are responsible for establishing communication methods to ensure enquiries, contracts or order handling; including amendments, customer feedback and complaints are handled expeditiously and professionally.

The Sales and Marketing Departments' primary responsibility is directing the business acquisition, retention and product development efforts of the Company, including external communications. Sales and Marketing and Customer Service are the primary customer contacts for product information.

The Quality Department is committed to addressing all documented customer enquires that reside within the organization's system. The Quality Department has the primary responsibility to address all customer related issues in regard to the quality of our products and services. The Quality Manager is the key contact in regard to questions pertaining to the company's quality management system.

7.3 Design & Development

7.3.1 Planning

At the start of the design process **TESLA** reviews the available specification data and identifies the key stages of the project. Design and development stages including organization, task sequence, mandatory steps, significant stages and methods of configuration control are established.

- Required design reviews, verification and validation activities appropriate to each design stage
- Where appropriate, due to complexity, consideration to the following activities is given:
 - Verification and validation methods appropriate to each design and development stage
 - Responsibilities and authorities for design and development
 - Identification of the technical interfaces required for the project

By structuring the design effort into significant elements and by analysing the elements and the necessary resources for design and development, **TESLA** identifies responsible personnel, design content, input data, planning constraints and performance conditions. The input data specific to each element is reviewed to ensure consistency with requirements.

7.3.2 Input

Design inputs such as customer enquiry or drawings, specifications, standards, regulations, etc. are checked to confirm they are adequate. Any conflicting or ambiguous requirements are discussed and resolved with the originator and the outcome recorded. If the project involves modifying an existing company design then the impact of the changes on component parts, stocks and delivered product is evaluated.



7.3.3 Output

The outputs of the design and development process are recorded and expressed in terms of requirements, calculations, analysis, or other means that can be verified against input requirements. The resulting outputs:

- Satisfy the design requirements
- Provide adequate information on production and service operations
- Refer to acceptance criteria
- Specify characteristics essential for safe and proper use of the product

7.3.4 Review

At appropriate stages, the design is reviewed to ensure it meets the specified input requirements and identifies and resolves any problems. These actions are recorded. The review includes all relevant stakeholders. Records of key decisions are retained.

The design review includes the:

- Evaluation of results of design and development activities to determine whether they fulfil requirements
- Identification of problems and proposals for corrective actions
- Authorization to progress to the next design and development stage

7.3.5 Verification

The design is verified (e.g. by reference to similar proven designs, or by carrying out alternative calculations) to ensure that the input requirements are met. Verification is usually carried out as part of the review process (see 7.3.4) and recorded.

7.3.6 Validation

Design and development validation is performed per the Design and Development Control Procedure to ensure that resultant products are capable of meeting the requirements for the specified application or intended use, where known, prior to release for delivery or implementation.

Where it is impossible to perform full validation prior to delivery or implementation, partial validation is performed to the extent applicable. Where tests are necessary for verification and validation, tests are planned, controlled, reviewed and documented to ensure and prove the following:

- The correct configuration of the product is submitted for testing
- The requirements of the test plan and the test procedures are observed
- The acceptance criteria are met

7.3.7 Control of Design & Development Changes

Changes to the design and development requirements are identified and recorded. Any changes are reviewed, verified, validated and approved. The review of design development changes includes evaluating the effects of those changes upon constituent products already delivered.

Supporting documentation:

Ref	Title & Description
P009	Design & Development Control Procedure



7.4 Purchasing

7.4.1 Purchasing Process

The purchasing process is essential to **TESLA's** ability to provide our customers with products that meet their requirements. **TESLA** ensures that purchased product conforms to specified purchase requirements. **TESLA** accomplishes this by closely working with our supplier base (e.g. periodic audits and surveys) and inspecting purchased product as required. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product.

It is the responsibility of the Purchasing Department to evaluate and select suppliers based on their ability to supply product in accordance with specified requirements. Additionally, other internal resources may be called on to assist as required. Criteria for selection, evaluation and re-evaluation are defined in the supplier evaluation procedure. Records of the results of evaluations and any necessary actions arising from the evaluation are maintained within the company documentation system.

7.4.2 Purchasing Information

TESLA uses purchase orders to describe the product or service to be purchased. Designated individuals within the company create purchase orders using the company system. They also ensure the adequacy of the requirements that are specified by the purchase order prior to release.

Each purchase order includes where appropriate:

- Identification of product or service to be delivered, quantity, delivery date, and cost
- Requirements for approval or qualification of product, procedures, processes or equipment
- Requirements for the qualification of personnel
- Quality management system requirements

7.4.3 Verification of Purchased Product

Purchased items are checked against the purchase order to confirm identity and quantity. Satisfactory items are placed in stock. In the event that items are rejected on receipt a non-conformance report is raised and the supplier contacted to arrange replacement or credit. Where the customer wishes to verify supplier activities, specific arrangements will be made.

Supporting documentation:

Ref	Title & Description
P010	Purchasing Procedure

7.5 Production & Service Provision

7.5.1 Control of Production & Service Provision

In order to control the planning, administrative support and implementation of work, **TESLA's** policy is to describe the work methods, the controls applied and the records required. The process control activities are integrated with many aspects that also relate to quality control.

The following controlled conditions are applied where applicable:

- Quality control checks are performed using appropriate measuring equipment
- Handling, storage and transportation



- Evidence of completed inspections
- Detailed process work instructions
- Specifications for all products
- Criteria for workmanship
- Competent personnel
- Plant maintenance

Supporting documentation:

Ref	Title & Description
P011	Process Control Procedure

7.5.2 Validation of Processes for Production & Service Provision

In cases where special processes are employed where the results of which cannot be easily checked, including any processes where deficiencies become apparent only after the product is in use. Validation demonstrates the ability of these processes to achieve planned results by:

- Defining qualification criteria and approval of special processes prior to use
- Defining criteria for review and approval of the processes
- Approval of equipment and qualification of personnel
- Use of specific methods and procedures
- Requirements for records
- Revalidation

Supporting documentation:

Ref	Title & Description
P012	Contract Review Procedure

7.5.3 Identification & Traceability

In order to preserve the conformance of products to customer requirements during internal processing and delivery, [TESLA](#) identifies the product throughout the product realization process in accordance with the Identification & Traceability Procedure P013.

- Stored equipment and materials are identified as to type, description and inspection status
- Unacceptable items are identified as such and are removed from the normal work flow
- All enquiries are identified with a unique estimate number, allocated on receipt
- Subsequent orders are identified by contract number

Supporting documentation:

Ref	Title & Description
P013	Identification & Traceability Procedure



7.5.4 Customer Property

In cases where the customer provides drawings, specifications, etc. they are logged as per the Document Control Procedure (P001). Customer property can also include customer-owned materials, tools (including returnable packaging), tooling (including test/inspection tooling and equipment), and intellectual property. We identify, verify, protect and maintain customer property provided for use.

The Quality Management Representative ensures that lost, damaged or unsuitable customer property is recorded and immediately reported to the customer. Refer to Section 8.3.

Supporting documentation:

Ref	Title & Description
P014	Control of Customer Property Procedure

7.5.5 Preservation of Product

TESLA ensures that all products and materials are handled and stored appropriately at all stages to prevent damage or deterioration:

- Components and products are handled and stored in a manner that prevents damage or deterioration pending use or delivery
- Each Department ensures controls are implemented to prevent mixing conforming and non-conforming materials
- Packing ensures specified or original manufacturing packaging is utilized
- All components/products are suitably packed to prevent deterioration or damage during storage and delivery

Supporting documentation:

Ref	Title & Description
P015	Preservation of Product Procedure

7.6 Control of Monitoring & Measuring Equipment

TESLA has determined the monitoring and measurement to be undertaken and the devices needed to provide evidence of conformity to determined requirements.

Where necessary to ensure valid results, measuring equipment is:

- Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards
- Software which is used for monitoring and measurement is validated according to defined parameters prior to use
- Protected from damage and deterioration during handling, maintenance and storage
- Safeguarded from adjustments that would invalidate the measurement result
- Identified to enable the calibration status to be determined
- Adjusted or re-adjusted as necessary

In addition, the Quality Department assesses and records the validity of previous measurement results when the equipment is found not to conform to requirements. The Quality Department takes appropriate action on any equipment or product affected. Where equipment is found to be out of calibration, the significance of the error is reviewed and appropriate action taken. Records of the results of calibration and verification are maintained. Supporting documentation:

Ref	Title & Description
P016	Control of Monitoring & Measuring Equipment Procedure



8. Measurement, Analysis & Improvement

8.1 General

This section describes how we define, plan and implement monitoring, measurement, analysis and improvement activities needed to assure product and quality system conformity and to achieve continual improvement. These activities include the assessment of customer satisfaction, internal auditing, process monitoring and measurement, and product monitoring and measurement.

The Quality Manager ensures that statistical tools are used to monitor quality management system processes; these are identified during quality planning and are included in control plans. Statistical techniques for on-going process control and improvement are established and are applicable to customer specific requirement documents.

TESLA plans and implements monitoring, measurement, analysis and improvement processes as needed, these processes are identified in documented procedures and include the determination of applicable methods, including statistical techniques and the extent of their use.

- To demonstrate conformity of the product
- To ensure conformity of the quality management system
- To continually improve the effectiveness of the quality management system

8.2 Monitoring & Measurement

8.2.1 Customer Satisfaction

The Quality Manager monitors information relating to customer perception as to whether the organization has fulfilled customer requirements.

Customer complaints, whether received in writing, verbally or electronically through e-mail are immediately forwarded to appropriate Customer Service personnel for action. If the problem cannot be resolved, the complaint is transferred to the Quality Manager for resolution.

Customer survey data along with other customer feedback, including written or verbal complaints and information collected via the customer feedback form are reviewed by the Quality Management Representative who initiates appropriate corrective actions needed as required by Section 8.5.

Customer satisfaction is monitored in various ways:

- Product returns and warranty claims
- Repeat customers and market share
- Analysis of customer complaints
- Customer satisfaction surveys
- Levels of repeat business
- Recognition and awards
- Growth of key accounts
- On-time delivery

Supporting documentation:



Ref	Title & Description
P017-001	Customer Complaint Procedure
P017-002	Customer Satisfaction Procedure

8.2.2 Internal Audit

Internal audit results are critical inputs that help in assessing the effectiveness of the quality management system by identifying opportunities for improvement, by promoting awareness of customer requirements and by measuring the effectiveness of the quality management system.

TESLA conducts internal audits at planned intervals to determine whether the quality management system conforms to the planned arrangements for product realization, to the requirements of ISO 9001:2008, as well as to quality management system requirements. **TESLA** will then determine if the quality management system is effectively implemented and maintained.

The Internal Audit Procedure (P018) details the requirements for developing the audit program including the requirements for planning; taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits.

The audit criteria, scope, frequency and methods are defined by the audit plan. The selection of auditors and their conduct ensures objectivity and impartiality throughout the audit process.

Process owners do not audit their own work. In cases where it is not possible to conduct an objective audit; the services of independent external auditor will be sought.

Supporting documentation:

Ref	Title & Description
P018	Internal Audit Procedure

8.2.3 Process Monitoring & Measurement

TESLA applies suitable methods for monitoring and measuring all quality management system processes. Quality management system processes are documented, measured, controlled and evaluated to ensure they are effective in achieving the desired results and to identify opportunities for improvement.

- In-process checks are included in various processes and relate to both quality control and productivity checks
- Provision is made for the identification and resolution of non-conformance.
- The emphasis is to prevent any problems which might affect customer satisfaction
- Action is taken promptly to resolve any problems that arise
- In-process checks are performed and recorded
- Where specific inspection points are required these are identified at the contract planning phase

Test and inspection records are maintained for a minimum of three years. These records include final inspection authority and identify and confirm that all critical parameters are in accordance with established requirements and specifications. Additionally, product samples are stored for a minimum of five years in accordance with the Control of Records Procedure (P002).

Products are not normally released or delivered until all planned inspections and tests have been completed and records have been maintained providing evidence of conformity with acceptance criteria and identifying the person(s) authorizing release. In rare cases (due to customer demands and/or production emergencies) unverified product may be released or delivered under controlled conditions of positive recall documented and authorized by the Quality Manager and, where



applicable, approved by the customer. Non-conforming product is identified and controlled to prevent its inadvertent use in accordance with Section 8.3.

8.2.4 Product Monitoring & Measurement

The Quality Manager has overall responsibility for planning and implementing the inspection and test activities needed to verify that product requirements are met at appropriate stages of the product realization process.

Products are not used until they are inspected or verified as conforming to requirements, except when the product is released under positive-recall procedures pending completion of all required measurement and monitoring activities.

When the organization uses sampling inspection as a means of product acceptance, the plan is statistically valid and appropriate for use. The plan precludes the acceptance of lots whose samples have known nonconformities. When required, the plan is submitted for customer approval.

Evidence of conformity with the acceptance criteria is maintained. Records indicate the person authorizing the release of the product. Product release and service delivery does not proceed until all the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority, and where applicable by the customer.

Measurement requirements necessary for product acceptance are documented; subsequent acceptance records form the production documentation evidence.

Production documentation evidence includes the following data:

- Criteria for acceptance and rejection
- Locations in the process sequence where measurement and testing operations were performed
- Types of measurement instruments used, including any instructions associated with their use
- Test records showing actual test results data where required by the specification or acceptance test plan

Supporting documentation:

Ref	Title & Description
P019	Inspection & Testing Procedure

8.3 Control of Non-conforming Products

It is **TESLA** policy is to detect, control and rectify any aspect of non-conformance as quickly and efficiently as possible. Where necessary, any material, product or service that does not conform to specified requirements is properly identified and controlled to prevent unintended use or delivery. Improvements are then implemented to ensure the non-conformance does not reoccur.

TESLA ensures that products which do not conform to specified requirements are identified and controlled to prevent unintended use or delivery. The controls and related responsibilities and authorities for dealing with non-conforming product are defined in the Control of Nonconforming Product Procedure (P020).

Supporting documentation:

Ref	Title & Description
P020	Non-conformance Procedure



8.4 Analysis of Data

Top Management and other managers and supervisors collect and analyze data using appropriate statistical techniques to determine the suitability and effectiveness of key quality management system processes applicable to their area(s) of responsibility and to identify opportunities for improvement. At a minimum, data is analyzed to assess achievement of the corporate level quality objectives and customer requirements.

A process is effective if the desired results are measurably achieved. Effectiveness is measured in terms of product quality, process accuracy, delivery schedule performance, cost and budgetary performance, employee function performance against established objectives and customer satisfaction. In order to identify trends and opportunities, **TESLA** monitors trends in the following activities:

- Characteristics of processes, products and their trends, refer to 8.2.3 and 8.2.4
- Conformity to product requirements, refer to 8.2.4
- Customer Satisfaction data, refer to 8.2.1
- Suppliers, refer to 7.4

Employees utilizing statistical tools to manage, verify or perform work will have attended an overview on basic concepts to ensure they are understood and properly utilized throughout the organization.

Supporting documentation:

Ref	Title & Description
P021	Analysis of Data Procedure

8.5 Improvement

8.5.1 Continual Improvement

The company continually improves the effectiveness of its quality management system through the effective application of the quality policy, quality objectives, auditing and data analysis, corrective and preventive actions and management reviews.

The continual improvement process begins with the establishment of our quality policy; Section 5.3 and objectives for improvement; Section 5.4.1, based on objectives contained in our business plan and customer targets and goals.

Customer satisfaction, internal audit, process and product performance data, and the cost of poor quality are then compared to progress against objectives or KPIs to identify additional opportunities for improvement.

The overall effectiveness of continual improvement program (including corrective and preventive actions taken as well as the overall progress towards achieving corporate level improvement objectives) is assessed through our management review process.

Supporting documentation:

Ref	Title & Description
P022	Continual Improvement Procedure

8.5.2 Corrective Action

Evidence of non-conformance, customer dissatisfaction or process weakness is used to drive our corrective action system. Since problems may exist, they will require immediate correction and possible additional action aimed at eliminating or reducing the likelihood of its recurrence. Management with responsibility and authority for corrective action are notified

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promptly of product or process non-conformities. Investigating and eliminating the root cause of these failures is a critical part of our continual improvement process.

TESLA takes action to eliminate the cause of non-conformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the non-conformities encountered.

The documented Corrective Action Procedure (P023) defines the requirements for:

- Reviewing non-conformities (including customer complaints)
- Determining the causes of non-conformities
- Evaluating the need for action to ensure that non-conformities do not recur
- Determining and implementing action needed
- Records of the results of action taken (see Section 4.2.4)
- Reviewing corrective action taken

Follow-up audits are conducted in accordance with the internal audit process; Section 8.2.2, to ensure that effective corrective action is taken and that the action is appropriate to the impact and nature of the problem encountered. In addition, the Quality Manager summarizes and analyzes corrective action data to identify trends in order to assess the overall effectiveness of the corrective action system and to develop related recommendations for improvement.

The corrective actions are considered effective if the specific problem was corrected and data indicates that the same or similar problems have not recurred. Results of data analysis and subsequent recommendations are presented to Top Management for review.

Supporting documentation:

Ref	Title & Description
P023	Corrective Action Procedure

8.5.3 Preventive Action

TESLA determines any necessary action to eliminate the causes of potential non-conformities in order to prevent their occurrence. Preventive actions are appropriate to the nature of a potential problem.

Data from internal audits, customer feedback, employee suggestions, and other appropriate data is collected and analyzed to identify the actions needed to eliminate the causes of potential. Investigating and eliminating the root cause of potential failures is a critical part of our continual improvement process.

We review and initiate preventive actions through our preventive action process defined below. The preventive action system is considered to be effective where potential risks or losses are avoided.

A documented Preventive Action Procedure (P024) defines the requirements for:

- Determining potential nonconformities and their causes
- Evaluating the need for action to prevent occurrence of nonconformities
- Determining and implementing action needed
- Records of results of action taken
- Reviewing preventive action taken

Supporting documentation:

Ref	Title & Description
P024	Preventive Action Procedure



Appendices

A.1 Abbreviations & Acronyms

The following abbreviations and acronyms apply to this document:

Ref	Definition
TESLA	TESLA FOR Electrical Service Co. Ltd. (ARTIC)
ASTM	American Society for Testing and Materials
BS	British Standard
SASO	Saudi Arabia standards, metrology and quality Organization
CA	Corrective Action
CAR	Corrective Action Request
CE	Conformité Européenne
CI	Continuous Improvement
IA	Internal Audit
ISO	International Standards Organization
NC	Non-conformance
NCR	Non-conformance Report
PA	Preventive Action
PAR	Preventive Action Request
PO	Purchase Order
QA	Quality Assurance
QC	Quality Control
F	Quality Form
QI	Quality Improvement
QM	Quality Manual
QMR	Quality Management Representative
QMS	Quality Management System
P	Quality System Procedure



A.2 Sequence and Interaction of Quality Management System Processes

