

IATF 16949:2016 – Automotive Quality Management System

| Level 1 - Manual & Plans | | |
|--------------------------|--|--|
| Manual | | |
| 1. | IATF 16949:2016 Manual | |
| | Plans | |
| 1. | Calibration Plan | |
| 2. | Contingency Plan | |
| 3. | Control Plan | |
| 4. | Measurement System Analysis Plan | |
| 5. | Preservation Plan | |
| 6. | Verification Plan | |
| | Level 2 - Procedures & Processes | |
| | Procedures | |
| 1. | Document and Data Control Procedure | |
| 2. | Corrective and Preventive Action Procedure | |
| 3. | Internal Audit Procedure | |
| 4. | . Management Review Procedure | |
| 5. | Control of Records Procedure | |
| 6. | Control of Monitoring and Measuring Equipment Procedure | |
| 7. | Risk Management Procedure | |
| 8. | Training Procedure | |
| 9. | Contingency Plan Procedure | |
| 10. | Communication Procedure | |
| 11. | Failure Mode Effect Analysis Procedure | |
| 12. | Control Plan Procedure | |
| 13. | Design and Development Procedure | |
| 14. | Control of Nonconforming Products and Services Procedure | |
| 15. | Customer Satisfaction Procedure | |
| 16. | Contract Review Procedure | |
| 17. | Purchasing Procedure | |
| 18. | Identification of Products Procedure | |
| 19. | Traceability Procedure | |
| 20. | Preservation Procedure | |
| 21. | Objectives and Targets Procedure | |

| 22. | Evaluation of Compliance Procedure | | |
|-----|--|--|--|
| | Processes | | |
| 1. | Design & Development Process | | |
| 2. | Manufacturing Process Design Input Requirements | | |
| 3. | Competences | | |
| 4. | Employee Motivation & Empowerment | | |
| 5. | Review, Distribution and Implementation of Customer Engineering Standard / Specification | | |
| 6. | Interaction of Processes | | |
| 7. | Product Safety | | |
| 8. | Identification and Traceability Process | | |
| 9. | Control of Reworked Product | | |
| 10. | Control of Repaired Product | | |
| 11. | Nonconforming Product Disposition | | |
| 12. | Problem Solving | | |
| 13. | Error Proofing | | |
| 14. | Total Productive Maintenance | | |
| 15. | Document and Maintain a List of the Process Controls | | |
| 16. | Contingency Plan | | |
| 17. | Maintenance Objectives | | |
| 18. | Supplier Selection Process | | |
| 19. | Identify Outsourced Processes | | |
| 20. | Supplier Monitoring | | |
| 21. | Managing Calibration and Verification Records | | |
| 22. | Internal Auditor Competency | | |
| 23. | Statutory & Regulatory Requirements | | |
| 24. | Control of Changes | | |
| 25. | Internal Audit Program | | |
| 26. | Continual Improvement Process | | |
| 27. | Second Party Audit Process | | |
| | Level 3 – Work Instructions | | |
| 1. | Cincinnati Center-Less Grinding machine | | |
| 2. | I.B.G. – 3 Bore Grinding Machine | | |
| 3. | IBG in Bore Dept. | | |
| 4. | Inner Track in External Dept. | | |

| 5. | Outer Track in O/R Dept. | |
|-------------------------------|--|--|
| 6. | Initial Job Set Up | |
| 7. | Inner Track Grinding Machine (Gendron) | |
| 8. | Inner Track Grinding Machine (Toyoda) | |
| 9. | Micron – 1 Grinding Machine | |
| 10. | Nippy Duplex Surface Grinding Machine | |
| 11. | Parivartan Surface Grinding Machine | |
| 12. | Outer Track Honing Machine (Pragati – 1) | |
| 13. | Inner Track Honing Machine (Pragati – 2) | |
| 14. | Profile Projector | |
| 15. | Roughness Tester | |
| 16. | Roundness Tester | |
| 17. | Scar Loss Center Less Grinding Machine | |
| 18. | Outer Track Honing Machine (Siebu – 1) | |
| 19. | Inner Track Honing Machine (Siebu – 2) | |
| 20. | Bore Grinding Machine (Sunrise China – 2) | |
| 21. | I.B.G. – 1 Bore Grinding Machine | |
| 22. | I.B.G. – 4 Bore Grinding Machine | |
| 23. | Outer Track Grinding Machine (Toyo O/R – 01) | |
| 24. | Outer Track Grinding Machine (Toyo O/R – 02) | |
| 25. | Outer Track Grinding Machine (Toyo O/R – 04) | |
| 26. | Tools (Back Plate) | |
| 27. | Tools (Quill) | |
| 28. | Tools (Shoe) | |
| 29. | Incoming Inspection and Testing | |
| 30. | In-Process Testing | |
| 31. | Final Inspection and Testing | |
| Level 4 - Formats & Templates | | |
| Formats | | |
| 1. | Master List and Distribution List of Documents | |
| 2. | Change Note | |
| 3. | Calibration Status of Instrument / Equipment | |
| 4. | Master List of Records | |
| 5. | Quality Objectives Monitoring Sheet | |

| 6. | Internal Audit Plan / Schedule |
|-----|--|
| 7. | IATF 16949:2016 Clause Wise Audit Review Report |
| 8. | Internal Audit Non-Conformity Report |
| 9. | Quality Objective Achievement Plan |
| 10. | Corrective Action Report |
| 11. | List of Legal Licenses / Certificates |
| 12. | List of External Origin Documents |
| 13. | List for Control of Customer Supplied Documents |
| 14. | Communication Report |
| 15. | Management Review Meeting |
| 16. | Risk Analysis Sheet |
| 17. | Preventive Action Report |
| 18. | Product / Process Audit Plan / Schedule |
| 19. | Product Process Audit Checklist |
| 20. | PP Quality Audit Non-Conformity Report |
| 21. | Potential Failure Mode and Effect Analysis Sheet |
| 22. | Process Control Plan |
| 23. | List of Qualified Internal Auditors and Criteria |
| 24. | List of Applicable Statutory and Regulatory Requirements |
| 25. | Training Calendar |
| 26. | Employee Wise Training & Competence Record Sheet |
| 27. | Induction Training Report |
| 28. | Job Description and Specification |
| 29. | Training Report |
| 30. | Multi-Skill Analysis |
| 31. | Performance Appraisal Report – Functional Heads |
| 32. | Performance Appraisal Report – Staff |
| 33. | Manpower Requirement Form |
| 34. | Purchase Order |
| 35. | Indent and Incoming Inspection Record |
| 36. | Approved External Provider List & Annual Purchase Order |
| 37. | External Provider Registration Form |
| 38. | Annual Purchase Order |
| 39. | Job Work Contract |

| 40. | Subcontractor Audit Report |
|-----|--|
| 41. | Vendor Rating |
| 42. | Enquiry / Contract Review Report |
| 43. | Customer Complaint Report |
| 44. | Customer Feedback Form |
| 45. | Customer Property Monitoring Register |
| 46. | List of Customers With Specific Requirements |
| 47. | Disposal of Nonconforming of Products & Services |
| 48. | Disposal of Nonconforming of Products & Services - Customer Returned Goods |
| 49. | Production Plan |
| 50. | Incoming Inspection & Testing Report |
| 51. | Final Inspection & Testing Report |
| 52. | Design and Development Plan |
| 53. | Design Review Minutes of Meeting |
| 54. | Design Verification Report |
| 55. | Design Validation Report |
| 56. | Breakdown History Card |
| 57. | Preventive Maintenance Schedule |
| 58. | Equipment Wise Preventive Maintenance Check Points |
| 59. | Packing Report / Slip |
| 60. | Invoice / Bill |
| 61. | Gate Pass |
| 62. | Material Issue Slip |
| 63. | Preservation Assessment Report |
| 64. | Goods Receipt Note |
| 65. | Visitor Log Book |
| | Process Approach |
| 1. | Customer Service |
| 2. | Dispatch |
| 3. | Design and Development |
| 4. | Engineering |
| 5. | Marketing |
| 6. | Management Representative |
| 7. | Production |

| 8. | Process Design |
|-----|--------------------------|
| 9. | Purchase |
| 10. | Quality Control |
| 11. | Stores |
| 12. | Subcontractor |
| 13. | Training Activity |
| 14. | Research and Development |

Contents

| 1 | App | licability | 8 |
|---|------|--|------|
| 1 | l.1 | Operational Area & Production Site(S) | 8 |
| 1 | 1.2 | Terms and Definitions | 8 |
| 2 | Cor | npany Profile | 10 |
| 2 | 2.1 | About Organization | 11 |
| 2 | 2.2 | Scope of Certification | . 11 |
| 2 | 2.3 | Permissible Exclusion | . 11 |
| 2 | 2.4 | Authorization Statement | . 11 |
| 3 | Cor | ntrol and Distribution | . 12 |
| 3 | 3.1 | Structure of Quality Manual | . 12 |
| 3 | 3.2 | Responsibility | . 12 |
| 3 | 3.3 | Reference | . 12 |
| 3 | 3.4 | Distribution | . 12 |
| 3 | 3.5 | Distribution List of Quality Manual | . 13 |
| 3 | 3.6 | Numbering and Document for Quality Manual | . 13 |
| 4 | Cor | ntext of the Organization | . 14 |
| 4 | 1.1 | Understanding the Organization and Its Context | . 14 |
| 4 | 1.2 | Understanding the Needs and Expectations of Interested Parties | . 16 |
| 4 | 1.3 | Determining the Scope of the Quality Management System | . 18 |
| | 4.3 | 3.1 Determining the Scope of the Quality Management System – Supplemental | . 18 |
| | 4.3 | 3.2 Customer-Specific Requirements | . 18 |
| 4 | 1.4 | Quality Management System and Its Processes | . 18 |
| 5 | Lea | dership | . 21 |
| [| 5.1 | Leadership and Commitment | . 21 |
| | 5.1 | .1 General | . 21 |
| | 5.1 | .2 Customer Focus | . 22 |
| Ę | 5.2 | Policy | . 22 |
| | 5.2 | 2.1 Establishing the Quality Policy | . 23 |
| | 5.2 | 2.2 Communicating the Quality Policy | . 23 |
| Ę | 5.3 | Organizational Roles, Responsibilities and Authorities | . 23 |
| | 5.3 | 3.1 Organizational Roles, Responsibilities, and Authorities – Supplemental | . 24 |
| | 5.3 | Responsibility and Authority for Product Requirements and Corrective Actions | . 24 |
| 6 | Plai | nning | 26 |

| 6.1 Ac | tion to Address Risks and Opportunities | 26 |
|----------|---|----|
| 6.1.1 | Identified Risks | 26 |
| 6.1.2 | Mitigation Plan | 26 |
| 6.2 Qu | ality Objectives and Planning to Achieve Them | 28 |
| 6.2.1 | Quality Objectives | 28 |
| 6.2.2 | Quality Objectives and Planning to Achieve Them | 28 |
| 6.3 Pla | anning of Changes | 29 |
| 7 Suppor | t | 30 |
| 7.1 Re | sources | 30 |
| 7.1.1 | General | 30 |
| 7.1.2 | People | 30 |
| 7.1.3 | Infrastructure | 30 |
| 7.1.4 | Environment for the Operation of Processes | 31 |
| 7.1.5 | Monitoring and Measuring Resources | 32 |
| 7.1.6 | Organizational Knowledge | 35 |
| 7.2 Co | mpetence | 36 |
| 7.2.1 | Competence - Supplemental | 36 |
| 7.2.2 | Competence – On-the-Job Training | 36 |
| 7.2.3 | Internal Auditor Competency | 36 |
| 7.2.4 | Second-Party Auditor Competency | 37 |
| 7.3 Aw | /areness | 38 |
| 7.3.1 | Awareness – Supplemental | 38 |
| 7.3.2 | Employee Motivation and Empowerment | 38 |
| 7.4 Co | mmunication | 38 |
| 7.5 Do | cumented Information | 39 |
| 7.5.1 | General | 39 |
| 7.5.2 | Creating and Updating | 40 |
| 7.5.3 | Control of Documented Information | 41 |
| 8 Operat | ion | 44 |
| 8.1 Op | erational Planning and Control | 44 |
| 8.1.1 | Operation Planning and Control – Supplemental | 44 |
| 8.1.2 | Confidentiality | 45 |
| 8.2 Re | quirements for Products and Services | 45 |
| 821 | Customer Communication | 45 |

| 8.2.2 | 8.2.2 Determining the Requirements for Products and Services | | |
|--|--|----|--|
| 8.2.3 Review of the Requirements for Products and Services | | 46 | |
| 8.2.4 Organization Name retains Documented Information Related to Contract | | | |
| 8.2.5 | 8.2.5 Changes to Requirements for Products and Services | | |
| 8.3 De | Design and Development of Products and Services | | |
| 8.3.1 | 8.3.1 General | | |
| 8.3.2 | Design and Development Planning | 48 | |
| 8.3.3 | 8.3.3 Design and Development Inputs | | |
| 8.3.4 | Design and Development Controls | 51 | |
| 8.3.5 | Design and Development Outputs | 53 | |
| 8.3.6 | Design and Development Changes | 54 | |
| 8.4 Co | ntrol of Externally Provided Processes, Products, Services | 55 | |
| 8.4.1 | General | 55 | |
| 8.4.2 | Type and Extent of Control | 57 | |
| 8.4.3 | Information for External Providers | 60 | |
| 8.5 Pro | oduction and Service Provision | 60 | |
| 8.5.1 | Control of Production and Service Provision | 60 | |
| 8.5.2 | Identification and Traceability | 64 | |
| 8.5.3 | Property Belonging to Customers or External Providers | 65 | |
| 8.5.4 | Preservation | 66 | |
| 8.5.5 | Post-Delivery Activities | 66 | |
| 8.5.6 | Control of Changes | 67 | |
| 8.6 Re | lease of Products and Services | 69 | |
| 8.6.1 | Release of Products and Services – Supplemental | 69 | |
| 8.6.2 | Layout Inspection and Functional Testing | 70 | |
| 8.6.3 | Appearance Items | 70 | |
| 8.6.4 | Verification and Acceptance of Conformity of Externally Provided Products & Services | 70 | |
| 8.6.5 | Statutory and Regulatory Conformity | 70 | |
| 8.6.6 | Acceptance Criteria | 71 | |
| 8.7 Co | ntrol of Nonconforming Outputs | 71 | |
| 8.7.1 | Disposal of Nonconforming Products | 71 | |
| 9 Perform | nance Evaluation | 74 | |
| 9.1 Mc | onitoring, Measurement, Analysis and Evaluation | 74 | |
| 9.1.1 | General | 74 | |

| 9.1.2 | Customer Satisfaction | 75 |
|------------|--|-----|
| 9.1.3 | Analysis and Evaluation | 76 |
| 9.2 Inte | rnal Audit | 76 |
| 9.2.1 | Audit Scheduling | 76 |
| 9.2.2 | Management Representative | 77 |
| 9.3 Mai | nagement Review | 79 |
| 9.3.1 | General | 79 |
| 9.3.2 | Management Review Inputs | 79 |
| 9.3.3 | Management Review Outputs | 81 |
| 9.3.4 | Management Review Outputs - Supplement | 81 |
| 10 Improv | /ement | 82 |
| 10.1 Ge | eneral | 82 |
| 10.2 No | onconformity and Corrective Action | 82 |
| 10.2.1 | Reviewing Nonconformity | 82 |
| 10.2.2 | Nonconformity & Corrective Actions Documents | 84 |
| 10.2.3 | Problem Solving | 84 |
| 10.2.4 | Error-Proofing | 85 |
| 10.2.5 | Warranty Management Systems | 85 |
| 10.2.6 | Customer Complaint and Field Failure Test Analysis | 85 |
| 10.3 Co | ontinual Improvement | 86 |
| 10.3.1 | Continual Improvement – Supplemental | 86 |
| Annexure I | - List of Documented Information | 87 |
| Annexure I | I - Glossary of Terms and Definitions | 90 |
| Annexure I | II - Company Activity Process Flow Chart | 97 |
| Annexure I | V - Quality Policy | 99 |
| Annexure \ | / - Organization Structure | 100 |
| Annexure \ | /I - Organization Knowledge | 101 |
| Annexure \ | VII - Communication Matrix | 104 |
| Annexure \ | /III - Anti-Bribery Policy | 107 |
| Annexure I | X - Policy on Employee Code of Conduct | 108 |
| Annexure > | C - Ethical Escalation Policy | 110 |
| | KI - Whistle Blowing Policy | |
| | KII - List of Interested Parties | |
| Annexure > | KIII - Record Retention Policy | 113 |

| Annexure XIV - Internal & External Laboratory Scope | 115 |
|---|-----|
| Annexure XV - List of Process Owner | 116 |

| DOCUMENT NO: | |
|-------------------|--|
| REVISION NO: | |
| DATE OF REVISION: | |
| PREPARED BY: | |
| REVIEWED BY: | |
| APPROVED BY: | |
| SIGNATURE: | |

5 Leadership

5.1 Leadership and Commitment

Organization Name's Top Management ensures that performance of quality management system implementation and provides a commitment to developing an effective system to exhibit its leadership and commitment.

- The quality policy and the objectives of the quality management system should be established and matched to the direction of the company;
- To integrate quality management system requirements into business processes of the Organization Name;
- To check for resources accessibility for the QMS;
- The quality management audit should be made or conducted to achieve its future result by proper evaluation and maintenance;
- An effectiveness of quality management system is attained by direction and support to persons;
- Encouraging continual improvement;
- To establish leadership responsibility, support other relevant management roles in their areas.

5.2 Quality Policy

5.2.1 Establishing the Quality Policy

Top Management is committed to maintaining high-quality standards in delivering prompt and costeffective services or solutions to customers by continual improvement of business processes amongst all employees, and recognizing the integrity, confidentiality, and availability of information assets to relevant stakeholders including customers.

- It should be suitable to purpose and quality management of the Organization Name;
- Offers a framework to review and set up objectives of the QMS;
- Organization Name provides quality awareness training to all employees with proper work instruction to maintain and improve the effectiveness of the quality management system;
- Directs communications between external and internal;
- Guarantee continual improvement of the QMS;
- Directs to ensure capabilities needed for quality management system.

Contents

| 1 | Pur | pose | . 4 |
|---|-----|--------------------------------------|-----|
| | | bpe | |
| | | sponsibility | |
| | | | |
| 4 | Des | scription of Activity | . 4 |
| | 4.1 | Equipment Selection / Specifications | . 4 |
| | 4.2 | Calibration Periodicity | . 5 |
| | 4.3 | System of Calibration of Instruments | . 5 |
| | 4.4 | New / Repaired Instruments | . 6 |
| | 4.5 | Identification of Calibration Status | . 6 |
| | 4.6 | Withdrawal of Equipment | . 7 |
| | 4.7 | Calibration Recall Service | . 7 |
| | 4.8 | Records | . 7 |

| DOCUMENT NO: | |
|-------------------|--|
| REVISION NO: | |
| DATE OF REVISION: | |
| PREPARED BY: | |
| REVIEWED BY: | |
| APPROVED BY: | |
| SIGNATURE: | |

1 Purpose

This procedure describes the method for ensuring that all instruments used for inspection, measurement and control of parameters affecting product quality are properly selected, calibrated or verified to ensure the adequacy and precision of the equipment at hand.

2 Scope

The procedures are applicable for all inspection, measuring, and testing instruments used in Inspection and testing areas, production areas, and assembly lines to measure the process parameters and quality of the products.

3 Responsibility

- 3.1 It is the responsibility of the Head of QA to plan, select, procure, calibrate, verify, and maintain inspection, measuring, testing equipment and instruments which are appropriate, precise and accurate for the intended purpose. In addition, he keeps all records of calibration of equipment and instruments, and related instructions.
- 3.2 A Functional Head or Employee is responsible for ensuring only calibrated or verified equipment is employed for testing and measurements to verify that the product meets the specified requirements.
- 3.3 The Senior Management, the concerned Functional Heads and all employees are responsible for calibrating all inspection instruments and equipment before the calibration validity expires. The calibration status of the device must also be maintained by them.

4 Description of Activity

- 4.1 Equipment Selection / Specifications
- 4.1.1 At the various work places, the QA Head ensures that inspection, measuring, and testing instruments are used with the required precision, accuracy, range, etc. He procures the items lacking with approval of HOD / top management if anything is found lacking. Our process / inspection requirements determine the least count / accuracy of our instruments, which is then verified using our equipment.
- 4.1.2 It is necessary to calibrate the instruments used for inspection, testing, and process control. The Calibration Status of the Instruments (F-QMS-03) should record these calibrations.

4.2 Calibration Periodicity

4.2.1 In accordance with the Calibration Status of the Instruments (F-QMS-03), periodic calibration of the instruments / equipment used for demonstrating the product conformance with the company's specific requirements has already been established. Calibration Status of the Instruments (F-QMS-03) contains information about instruments that may influence product quality, such as calibration frequency and method.

4.3 System of Calibration of Instruments

Instruments used in process and QC are calibrated by Outside Calibration Labs where their validity is known because they are related to nationally / internationally recognized standards.

In order to establish and maintain a traceable calibration system, the following features need to be taken into consideration:

- 4.3.1 Calibration is done on all critical inspection instruments. No calibration is done on equipment that's used only for the indication (such as voltmeters). Validation may also be required for processes such as welding, sterilization, training, heat treatment, calls center service or emergency response.
- 4.3.2 After considering measurement requirements, test criteria, and the process or product, the Head of Q.C. identifies the critical instruments and equipment. It is necessary to calibrate only such instruments. Our system does not require calibration or verification of the instruments used for indicator or not relevant to our system; these are considered as indicators.

4.4 New / Repaired Instruments

If the instrument is not accompanied by a calibration certificate from the manufacturer, all new or repaired measuring instruments must undergo calibration before they can be used. Further, the Head of Production issues them an identification number in order to identify them and sends them to the concerned work area.

4.5 Identification of Calibration Status

It is necessary to identify the calibration status of the equipment by stickers, tags, or records to recall when calibration is due.

4.6 Withdrawal of Equipment

Whenever anyone finds a piece of equipment having a systematic error nearer to the acceptance criteria or a part of the instrument not working, it is marked with a correction factor or a limited use. An instrument is sent for repair or a withdrawal identification mark is applied if there is an unsystematic error or a major fault.

4.7 Calibration Recall Service

Head of Production operates a calibration recall service that advises users about the calibration validity of their instruments, at least one week before the validity expires, based on the status report of calibration status.

Contents

| 1 | Pur | pose | . 4 |
|---|-----|--|-----|
| | | · ppe | |
| | | erence | |
| | | | |
| | | sponsibility | |
| 5 | Pro | cedure | . 4 |
| | 5.1 | Design and Development Planning | .4 |
| | 5.2 | Design and Development Input | . 5 |
| | 5.3 | Design and Development Controls | .5 |
| | 5.4 | Design and Development Verification and Validation Testing | .6 |
| | 5.5 | Manufacturing Process Design Input | .6 |
| | 5.6 | Design and Development Outputs | .7 |
| | 5.7 | Manufacturing Design Output | .8 |
| | 5.8 | Design and Development Changes | .8 |

| DOCUMENT NO: | |
|-------------------|--|
| REVISION NO: | |
| DATE OF REVISION: | |
| PREPARED BY: | |
| REVIEWED BY: | |
| APPROVED BY: | |
| SIGNATURE: | |

1 Purpose

To create written procedures for establishing, validating and maintaining inspection and development records for demonstrating the conformance of product characteristics with the specified requirements of developed products.

2 Scope

Product design and development is covered in this procedure.

3 Reference

Quality Manual, Section 8.3

4 Responsibility

With assistance from the R&D Manager, the Q.C. Manager and Production Manager are responsible for creating product records.

5 Procedure

Product samples/drawings serve as inputs for the design and development of a new product. It contains details on the implementation, maintenance and development of a system. This plan also includes the subsequent quality assurance process.

5.1 Design and Development Planning

On the various products manufactured until date, past data about a similar development activity, technical specifications (given by the customer / applicable specification / samples) and feedback from production / users are available. The design team develops the execution plan, which includes activities, responsibilities, and schedules. Updates are made as and when necessary. Design planning for each D&D activity is evaluated internally and externally by way of critical design review, verification of the breadboard or engineering model, and validation of the prototype or final product. D&D activities are assigned to qualified personnel with adequate resources by the R&D manager. It is recorded what inputs are made to what outputs are produced. To achieve effective communication and clarity of responsibilities among members of different groups engaged in D&D and development, intergroup interaction is managed.

5.2 Design and Development Input

Product design and development are based on samples, drawings, customer requirements, and expected quality levels said in contract documents, as well as requirements raised by potential customers, or those received from the customer. The following inputs are defined and documented for the product requirements:

- a. Product's functionality and performance requirements;
- b. Data derived from previous similar development activities;
- c. Regulatory and legislative requirements applicable;

d. Standards, specifications, codes or procedures applicable;

5.3 Design and Development Controls

The R&D Manager and all concerned Functional Heads review the design at various stages of development and / or design. Throughout the design process, meetings have been held to review and control the design development. During the design review meetings, all of the design and development documents and parameters are reviewed. Upon receiving suggestions, changes are made.

In the process of designing and developing we have implemented controls

- a. There is a clear set of goals to achieve;
- b. Design and development outcomes are evaluated by conducting reviews;
- c. During development, the inputs are verified against the output requirements;

5.4 Design and Development Verification and Validation Testing

Upon completion of the design process, the organization ensures the design meets all specified operational conditions through reports, calculations, test results, etc.

5.5 Manufacturing Process Design Input

During the process design of a new product, we consider the customer requirements, and the expected quality level given in the contract documents and/or during customer interactions. Specifications and inputs pertaining to manufacturing process requirements are defined and documented. These include:

- a. The data output from a product design, including Drawings, Design Calculations, and Bills of Materials (BOMs);
- b. Production goals, process capabilities, process timing, and cost objectives (including component, assembly, and overhead);
- c. Technologies that replace manufacturing;
- d. Customer requirements;

5.6 Design and Development Outputs

When the design and development is complete, a Designing Record, Bill of Materials, Product specification, Drawings, Process control plan, further technical specifications, and monitoring/measuring requirements are written along with the acceptance criteria. The Manager for Research & Development ensures that Design and Development output matches design specifications and references product acceptance criteria. In order for the products supplied to be used safely and properly, crucial performance characteristics must be identified.

| Internal Audit Non-Conformity Report | | | | | | | | |
|---|---|-------|-----------------------|----------|--------|--|--|--|
| NC Report No: | | | Date: | | | | | |
| Department / Area: | | | Document Ref: | | | | | |
| Auditor: | | | IATF 16949 Clause No: | | | | | |
| Audit Criteria: | | | Control #: | | | | | |
| Description of Non–Conformity: | | | | | | | | |
| | | | | | | | | |
| Person Responsible: | | | | | | | | |
| Date of Completion | Plann | ed: | Actual: | | | | | |
| Auditee: | • | | Auditor: | | | | | |
| Signature | | | Signature | | | | | |
| Root Cause of Non–Conformity: | | | | | | | | |
| | | | | | | | | |
| Action Taken to Resolve the Non–Conf | Action Taken to Resolve the Non–Conformities: | | | | | | | |
| | | | | | | | | |
| Corrective Action Taken: | | | | | | | | |
| | | | | | | | | |
| | | | | I | T | | | |
| Review of Action Taken: | | | Status: | ☐ Closed | ☐ Open | | | |
| | | | Signature: | | | | | |
| | | | Date: | | | | | |
| Planned Date for Reviewing Effectiveness: | | | | | | | | |
| Review of Effectiveness of Action Taken (Next Audit): | | | | | | | | |
| | | | | | | | | |
| Effectiveness Checked On Da | | Date: | | Sign: | | | | |

| PREVENTIVE ACTION REPORT | | | | | | |
|---|---------------------------|--|--|--|--|--|
| Sr. No: | Date: | | | | | |
| Department: | | | | | | |
| Ref. CAR No., If Any: | | | | | | |
| Potential Areas | s of Improvement | | | | | |
| Quality Management System Operations | Handling of Complaints | | | | | |
| Quality Report | Management Review Meeting | | | | | |
| Products or Services | Internal Audit | | | | | |
| Risk Management | Others, Specify | | | | | |
| Description of Potential | Cause of Non-Conformities | | | | | |
| Description of Cause of Potential Non-Conformities: | | | | | | |
| | | | | | | |
| Date: | Identified By: | | | | | |
| Action Recommended: | Responsibility: | | | | | |
| | | | | | | |
| Action Taken: | | | | | | |
| Action Taken. | | | | | | |
| | | | | | | |
| Date: | Taken By: | | | | | |
| Summary of Document Change etc: | | | | | | |
| | | | | | | |
| Diament Data for Davisoring Effectives | | | | | | |
| Planned Date for Reviewing Effectiveness: | | | | | | |
| Review Effectiveness of Corrective Action Taken: | | | | | | |
| Date: | Reviewed & Approved By: | | | | | |
| | | | | | | |
| | QMS Coordinator | | | | | |