



Quality Manual

Approval Page

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Approved by: _____ Revision Date: 5/20/2013

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Scope/Exclusions

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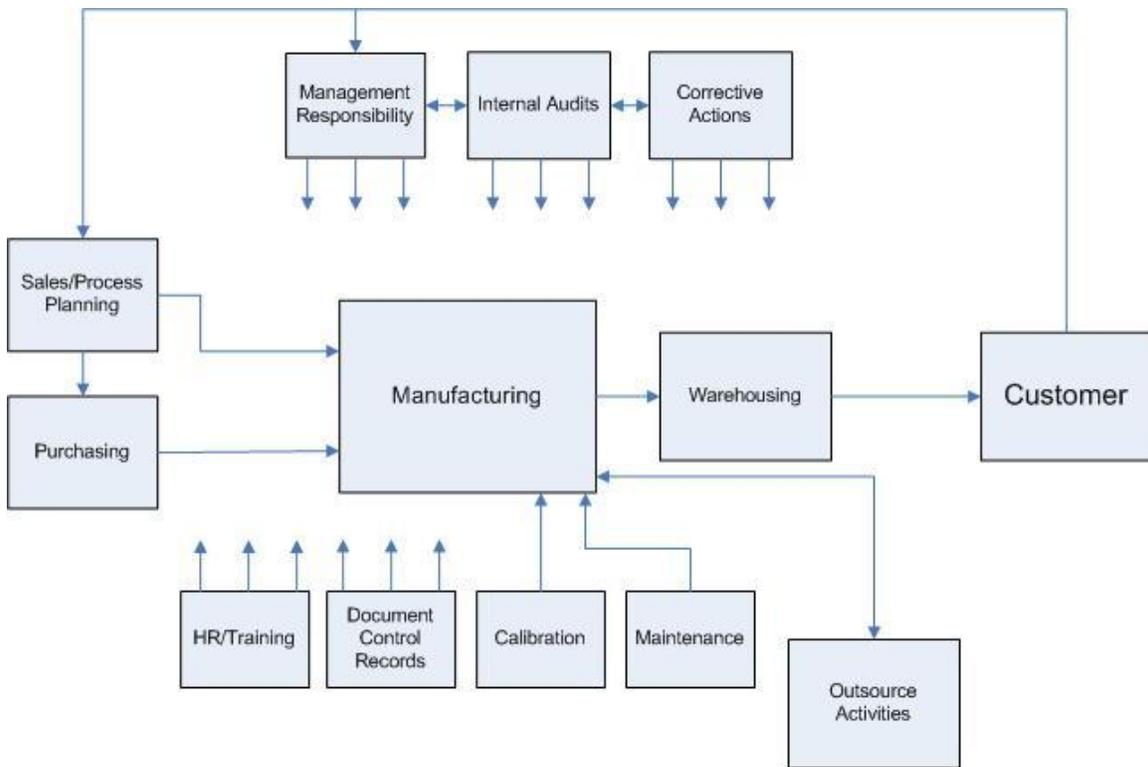
The scope of DuraTech Industries Quality System is the manufacture of appliquéés for automotive applications.

This Quality Manual governs the system employed to control processes and product quality at DuraTech Industries. The system encompasses the entire manufacturing process (from supplier selection, to receiving and testing of raw materials, and through the manufacturing, testing and shipping of end products). Clause 7.3 Design and development is excluded because the design is controlled by the customer, however, the designs are validated for manufacturability.



4.1 General

DuraTech has established and maintains a documented quality system to ensure that products and services meet the expectations of our customers.



4.2 Documentation Requirements

Team leaders ensure that procedures are implemented and maintained. Quality Assurance assures that the quality system reflects the current standard.

DuraTech utilizes work instructions to detail the processes. Training is provided for the employees involved in carrying out the activities described in procedures and work instructions. Forms and records provide the documentation necessary to meet TS16949 requirements.

DuraTech maintains procedures and work instructions to control all documentation and data requirements needed to support our quality system. This documentation and data control policy applies to all hardcopy and electronic documentation generated and/or received (external) at DuraTech. All controlled documentation is reviewed and approved prior to issue by appropriate personnel as established in the QA2001 Document and Data Control Procedure.

A master file of current revision status of all internal documentation is maintained and readily available at the point of use. Customer information is controlled through the CS2003 Order Review Procedure.

Our controlled document distribution system ensures that all internal documents are current and available, and all obsolete and invalid documents are promptly removed. Any retained obsolete and invalid documents are clearly marked.

Any team member may initiate changes to documents. All changes to the quality manual are reviewed and approved by Senior Leadership. All changes to procedures are reviewed and approved by Quality Assurance. All work instructions and forms are reviewed and approved by the Document Control Team. The revision history for each document, describing the nature of the change, is shown in the Document Database. All team members have access to pertinent background information upon which to base their review and approval.

Procedures are established and maintained for the identification and disposition of quality records. Records, including those that may pertain to subcontracted products, are maintained to show conformance to specified requirements and to ensure the effectiveness of the quality system. All records are retained and protected for prevention of damage or loss and are kept as needed for the duration of the applicable product history and/or as designated by the customer. Records are available for customer evaluation on request.

References

QA2001 Document and Data Control Procedure
CS2003 Order Review Procedure
IS2034 Information Systems Procedure

 DURATECH INDUSTRIES	Quality Manual	Management Responsibility
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5.1 Management Commitment

Senior Leadership's commitment and involvement in the quality management system is visible throughout the organization. The vision, quality policy, strategic objectives and importance of meeting customer requirements are communicated in a number of ways, i.e. company-wide and departmental meetings, bulletin boards, corporate policies and new hire orientations.

Senior Leadership reviews organizational performance measurements, customer satisfaction feedback, continual improvement efforts and resource needs in scheduled management review meetings.

5.2 Customer Focus

Management is committed to ensuring customers' requirements are met to enhance customer satisfaction. This includes applicable statutory and regulatory requirements. Management has accomplished this through the order review process and other value-added services offered, i.e. supplier managed inventory.

5.3 Quality Policy

"DuraTech Industries consistently provides world-class products and legendary customer service, through continual improvement and adherence to established quality objectives, which meets or exceeds our customer's expectations"

DuraTech quality policy and quality objectives are established by management and communicated to the organization through a variety of methods; company-wide meetings, new associate orientation training, team meetings, electronic media and bulletin boards.

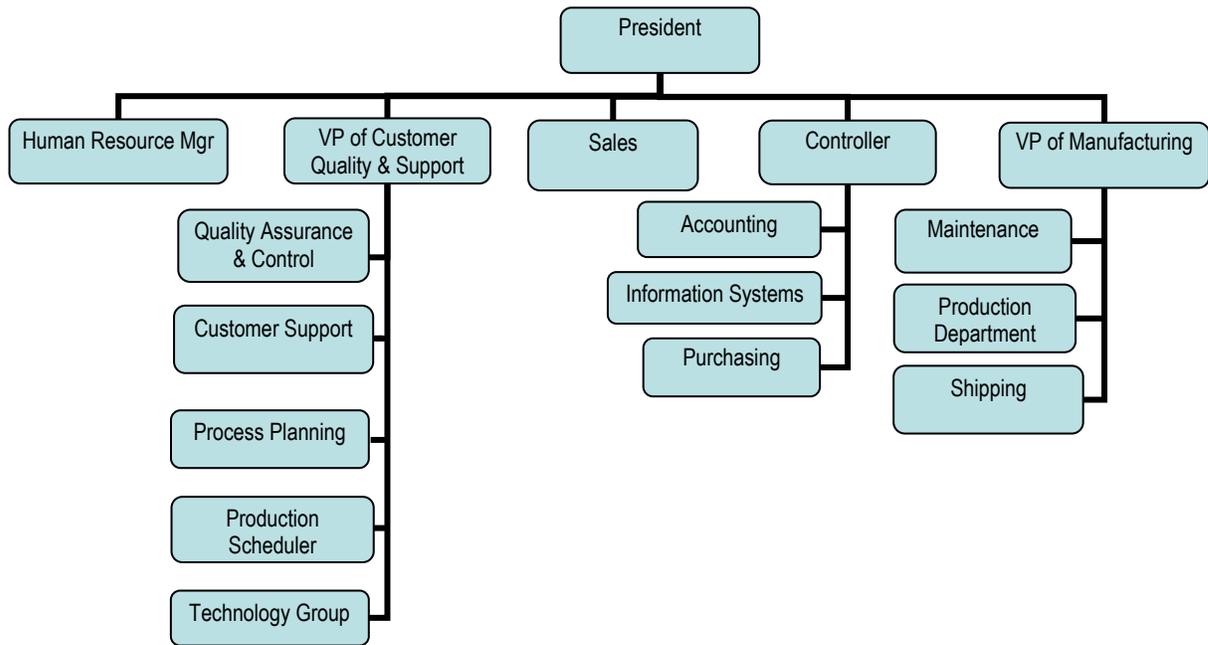
5.4 Planning

A Planning Team consisting of a multi-disciplinary group of individuals has been formed to develop, review and maintain the planning process at DuraTech. The Planning Team reviews DuraTech's Strategic Plan and establishes the operating plan at planning retreats. The outcome is communicated to employees through a variety of methods that include company-wide meetings and department meetings.

Controlled copies of the strategic plan and operating plan are available in the document manuals. Implementation of operational plans provides resources to fulfill business needs. Operational plans and budgets include training, equipment, facilities, materials and other system requirements.

5.5 Responsibility, Authority and Communication

Management expects all team members to be responsible for effective communication, quality of their work and initiating corrective action for any nonconformities relating to product, process, and quality system. The responsibilities and authorities for all team members are outlined in job descriptions and procedures. Team leaders are responsible for the optimal performance of the quality system within their areas. Documented procedures address problem resolution, nonconformity, planning and acquisition for quality system requirements. The chart below depicts the responsibilities for each process.



Quality Assurance, which includes our management representative, has established, implemented and maintains a quality system in accordance with TS16949. The management representative has direct responsibility to Senior Leadership for reporting on the performance of the quality system.

Management communicates DuraTech's quality policy, requirements, objectives and improvements through bulletin boards, DuraTech newsletter, company-wide meetings, and team meetings.

5.6 Management Review

Performance measures and reviews of the quality system are the basis of continuous improvement efforts at DuraTech. Senior Leadership is responsible for reviewing the quality system annually, or as required, to ensure it is suitable and effective in satisfying the requirements of TS16949. The management review process is described in QA2005 Quality System Management Review Procedure.

References

QA2005 Quality System Management Review Procedure
CW4057 Job Description
MT4028 Strategic Business Plan



6.1 Provision of Resources

Senior Leadership plans for the equipment, people, building, financial and support resources necessary to ensure customer satisfaction.

6.2 Human Resources

DuraTech has performance-based job specific instruction and a tuition reimbursement program for appropriate outside education.

Team leaders/trainers maintain records of each team member's participation in classes and completion of other certification requirements.

Training needs and team member competence to perform the job is reviewed and discussed during performance appraisals. Team members are responsible for participation in the team member development program. Company-wide training needs are reviewed on at least an annual basis by Senior Leadership.

DuraTech provides an environment in which employees are motivated to achieve quality objectives and make continual improvements. An Employee Involvement Program has been established by which suggestions for improvements and process optimization are submitted. These ideas include opportunities for safety improvement and more efficient workflow. Performance metrics are reviewed regularly with employees in company-wide and individual team meetings.

To ensure that all employees are aware of the relevance of their jobs and how they contribute to the achievement of the quality objectives, awareness training is conducted as part of department training programs and reviewed during performance appraisals. Internal audits measure the effectiveness of this training.

6.3 Infrastructure

As described in Section 6.1, Senior Leadership plans for equipment, building, work space and other associated support resources.

Equipment preventive maintenance is performed to ensure continuing process capabilities.

Recovery plans are in place for utility interruption, labor shortage, loss of water and equipment failure of unique pieces of equipment. Artwork and part information are

maintained electronically. The electronic files are backed up and stored in a removed location.

6.4 Work Environment

A suitable work environment is provided including cleanliness, temperature and humidity controlled areas.

A safety program has been implemented, which includes personal protective equipment, lockout/tagout, hazardous material labeling, and various other aspects of safety. The safety program is documented in more detail in CW2026 Safety Procedure.

References

QA2009 Process Control
HR2020 Training Procedure
QA2023 Preventive Maintenance
CW2026 Safety Procedure

 DURATECH INDUSTRIES	Quality Manual	Product Realization
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7.1 Planning of Product Realization

DuraTech has established and maintains a quality planning system to assure the delivery of quality products and services. The quality planning process is an integral part of the procedures and work instructions of our quality system.

New products and processes are given special attention to identify the need for additional resources in order to achieve the required quality.

7.2 Customer Related Processes

Customer requirements and other statutory and/or regulatory requirements are reviewed by our Customer Support team prior to order acceptance to ensure accuracy and completeness of the order. Orders are officially accepted and scheduled upon confirmation with the customer.

It is the responsibility of the Customer Support Team to assure accurate information is distributed to the appropriate areas.

Orders are reviewed to ensure that:

- Order requirements are clearly stated, defined, and documented.
- Any deviations from the original order are resolved prior to acceptance.
- DuraTech has, or can acquire the necessary capabilities to meet all contract requirements.

Changes to orders are documented and approved by DuraTech and the customer and communicated in a timely manner to the appropriate areas.

7.3 Design and Development

Design is controlled by the customer; however, designs are validated for manufacturability during the quality planning process.

7.4 Purchasing

DuraTech has established and maintains documented procedures to ensure that purchased products conform to DuraTech, governmental, safety and environmental specified requirements.

Suppliers are selected and evaluated according to their ability to meet requirements for specific DuraTech projects. This is managed through a regularly scheduled evaluation based on quality and on-time delivery. Records of supplier evaluation and performance are maintained.

Purchase orders describe and classify the product being ordered. Specific reference is made to any other technical data necessary to process the order, such as shipping instructions, drawings, inspection or packaging requirements, and any other expected standards. Purchasing documents are reviewed and approved prior to their release.

DuraTech personnel seldom verify products at the suppliers' premises. Suppliers are expected to meet DuraTech's specifications, and products are normally verified at DuraTech using our Incoming Receiving and Inspection Procedure.

DuraTech's customers seldom verify products at the suppliers' premises. DuraTech offers the option for customers to arrange a visit to the supplier/subcontractors' premises. The customer verifies subcontracted products shipped directly to the customer.

7.5 Production and Service Provision

Processes are controlled through the use of our quality planning system. Procedures ensure that processes directly affecting quality are controlled. The processes are planned; documented and performed by trained personnel in compliance with the applicable standards/codes, procedures, work instructions, and quality/test/control plans.

Suitable equipment is planned for and provided through the use of the quality planning system. A suitable work environment is provided including cleanliness, temperature and humidity controlled areas.

Monitoring and control of process parameters and product characteristics are handled through the use of appropriate controls such as templating, visual inspections, density charting, and product auditing.

Processes and equipment are evaluated and approved.

Workmanship standards are documented and applied, using visual samples for clear understanding of acceptable quality.

Equipment preventive maintenance is performed to ensure continuing process capabilities.

Where the results of a product or process can't be verified through inspection and testing, DuraTech has special processes that are controlled through monitoring and control of process parameters to ensure that the specified requirements are met.

Records are maintained for all processes, equipment, and personnel.

DuraTech has established and maintains procedures to identify raw materials that are received and used throughout the production process. Where required by the customer, traceability for identification of individual lots is maintained. The level of traceability is determined by customer requirements as well as DuraTech's needs. Identification records are kept at the individual job level.

Inspection and testing results are recorded and indicate product conformance or nonconformance. Inspection and testing results are maintained according to procedures to ensure product has passed the required inspection or tests before they are released. Nonconforming product may be released under authorized concession as stated in QA2011 Control of Nonconforming Product procedure.

DuraTech has established and maintains a material control procedure that applies to customer-supplied products, such as raw materials, components, tooling, artwork, and packaging. This procedure addresses the verification, storage and maintenance of customer-supplied product. It is expected that the customer will verify the quality of the product delivered to DuraTech.

Customer-supplied nonconforming product is identified and segregated. The disposition of nonconforming or miscounted materials is reported to the customer through our process for control of nonconforming product.

DuraTech has established and maintains procedures for preventing damage and deterioration of raw materials and products in all phases of manufacture, storage and delivery.

Team members are provided with training in proper handling methods. Training covers safe handling methods, proper use of handling equipment, and prevention of damage to product.

Storage or stock areas are designed for prevention of damage and deterioration. Authorization methods are used for receipt and dispatch of products. Stored items are assessed periodically for suitability of use.

Packing, packaging, and marking of products are controlled throughout the production process to ensure conformance to customer requirements and prevent damage.

The methods of preservation and segregation for preventing damage and deterioration of raw materials and products are controlled through procedures and work instructions.

Final product is protected and shipped to maintain the quality of the product.

7.6 Control of Monitoring and Measuring Devices

DuraTech has established and maintains procedures to control, calibrate, and maintain the inspection/measuring equipment used to ensure conformance of specified requirements. Scheduled verification checks are established to ensure measurement and/or test equipment is capable. Records are kept and maintained for evidence of control and are made available when required by the customer.

The appropriate measuring and/or test equipment is selected according to the specific requirements of each product.

Inspection, measuring, and test equipment that affect product quality are calibrated and adjusted at designated intervals.

The criteria used to determine calibration methods of inspection, measuring and test equipment includes identification and details of the equipment, frequency of checks, acceptance, and action taken if results are unsatisfactory.

Records are kept for the identification and calibration of inspection, measuring, and test equipment. Previous inspection and test results are evaluated if equipment is found to be out of calibration.

Environmental conditions are monitored to ensure they are suitable for inspection, measuring and test equipment methods.

Accuracy and fitness of inspection, measuring and test equipment is assured through the use of proper handling, storage and training.

References

QA2002	Quality Planning Procedure
CS2003	Order Review Procedure
QA2009	Process Control Procedure
QA2011	Control of Nonconforming Product Procedure
PU2012	General Purchasing Procedure
QA2014	Product Identification and Traceability Procedure
QA2017	Control of Customer Supplied Product
PW2018	Material Handling Procedure
MN2023	Preventive Maintenance Procedure
QA2024	Inspection and Test Status Procedure
QA2025	Control of Inspection, Measuring and Test Equipment Procedure



8.1 General

Statistical control needs for each type of product manufactured are identified in the inspection plan and/or control plan during the quality planning process. Statistical process measurements are carried out and verified by trained process owners.

The QA2037 Statistical Techniques procedure implements and controls the application of statistical techniques, in accordance with the work order routing sheets, control plan, inspection plan and process control requirements.

8.2 Monitoring and Measurement

DuraTech has established and maintains procedures for inspection and verification of specified requirements for manufactured products and raw materials. The details regarding inspection and testing are covered in the work order routing sheets, inspection plan and/or documented procedures and work instructions for each inspection process.

The goal at DuraTech is to have a certified supplier base to minimize incoming inspection. Certification is based upon supplier performance.

Some materials are verified at the suppliers' premises through material certifications. All remaining raw materials are inspected per QA2016 Incoming Receiving and Inspection Procedure.

Incoming raw materials released for urgent production prior to verification for acceptance are tagged, documented, and recorded for traceability in the event of nonconformance.

In-process inspection and testing is detailed through the inspection plan and/or inspection procedures and work instructions.

Manufactured products are not released until inspection and/or testing is complete and all appropriate data is documented and verified at each process stage according to the work order routing sheets. All manufactured products receive in-process inspection.

Final inspection and/or testing are completed according to the inspection plan and/or procedures to verify conformance of the finished manufactured product to the specified requirements.

Inspection activities are completed according to the inspection plan prior to release of any manufactured product. Inspection and test data is made available, documented and authorized by trained personnel.

Inspection and test records are established and maintained to provide evidence of manufactured product conformance, and the acceptance or failure of inspection/tests according to defined criteria. Nonconforming products are dispositioned according to QA2011 Control of Nonconforming Product Procedure.

The quality system at DuraTech supports the activities related to internal quality audits. Procedures are in place for the planning and implementation of quality audits to ensure compliance to the quality system requirements. Audits are scheduled and pre-determined on the basis of status and importance of the process and are carried out by trained auditors independent of the direct process involved. Results of audits are recorded and communicated to the process owners and team leaders. The responsible team members implement corrective actions. All actions taken are recorded and monitored to verify their effectiveness.

8.3 Control of Nonconforming Product

DuraTech has established and maintains procedures to ensure that nonconforming product is identified, documented, and segregated, where practical, to prevent unintended use. It is reviewed and dispositioned according to QA2011 Control of Nonconforming Product procedure.

Responsibility for review and authority for the disposition of nonconforming product is defined in the procedure. Product may be reworked, accepted with or without concessions, rejected or scrapped.

Where required by contract, products that do not conform to the specified requirements are reported to the customer and dispositioned accordingly. Concessions are documented. Repaired or reworked product is reinspected according to the work order routing sheets, inspection plan or procedures.

8.4 Analysis of Data

DuraTech monitors trends in operational performance, including cost of quality based on product classes, productivity, and system efficiency and effectiveness. These measures are based on corporate goals, which are compared to appropriate benchmarks. Senior Leadership reviews these operational performance measures at least annually.

DuraTech gathers customer feedback, reviews customer report cards and analyzes customer concern reports to identify trends in quality, delivery and service performance. Senior Leadership conducts long-range planning based on identified trends.

8.5 Improvement

DuraTech has established and maintains a procedure for corrective and preventive action that focuses on eliminating causes of nonconformity. Any corrective or

preventive actions of a magnitude that require a change in documented procedures are implemented and recorded through an engineering change request. The corrective and preventive action system is reviewed for effectiveness by Senior Leadership.

This procedure includes customer, supplier and internal corrective actions. The root cause of the nonconformity is identified and suitable corrective action is implemented. Corrective action follow-up ensures problems are resolved and implementation of the actions is effective.

Preventive action is the basis of our continuous improvement effort. It is a part of the procedure for corrective action and quality planning. Information from the corrective action system and other quality records determines the scope of preventive action.

References

- QA2009 Process Control Procedure
- QA2011 Control of Nonconforming Product Procedure
- QA2013 Corrective Action Procedure
- QA2016 Incoming Inspection and Receiving Procedure
- QA2019 Internal Auditing Procedure
- QA2024 Inspection and Test Status Procedure
- QA2035 Final Inspection Procedure
- QA2036 In-Process Inspection Procedure
- QA2037 Statistical Techniques Procedure
- QA2049 Preventive Action Procedure