

Quality Management System Manual

Acro Industries, Inc.
554 Colfax Street
Rochester, NY 14606
585.254.3661
www.acroind.com

INTRODUCTION

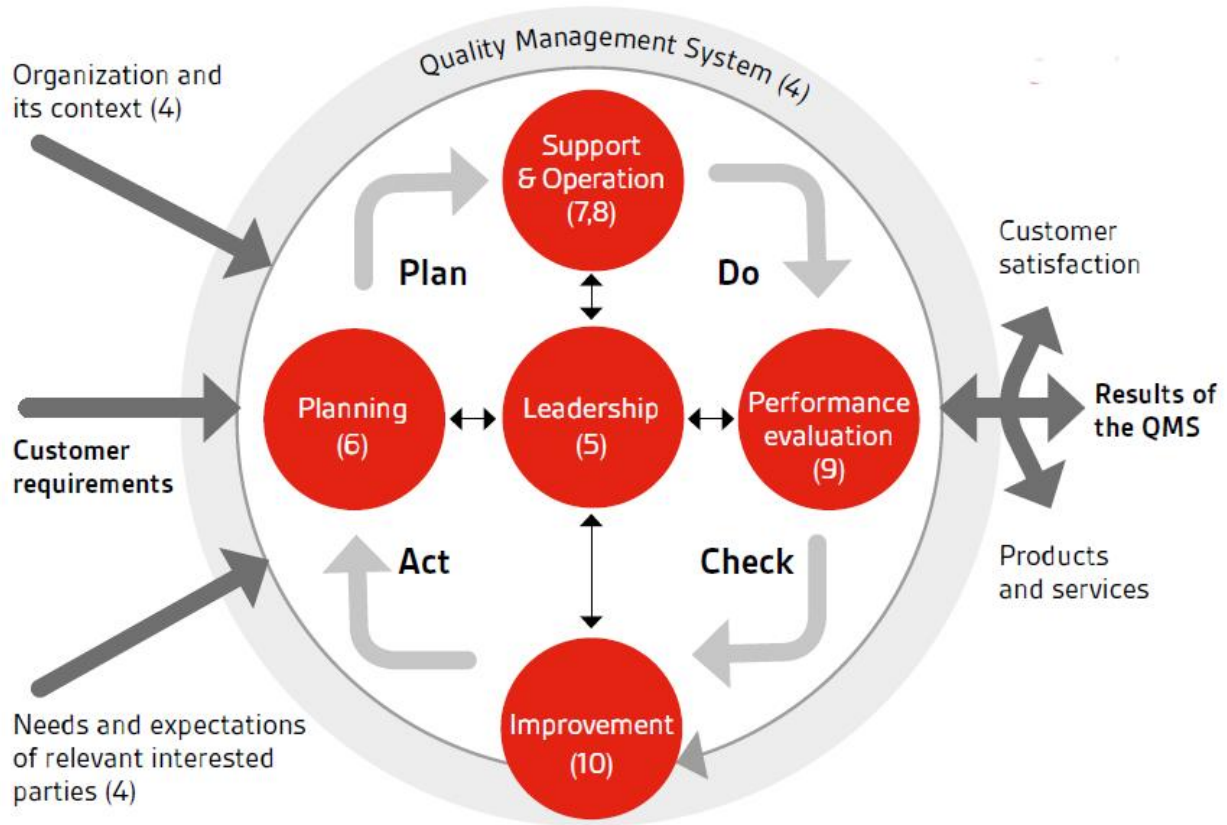
Acro Industries, Inc. is a leading manufacturer of precision machinings and sheet metal components including complex electro-mechanical assemblies. In business for over 35 years supplying product worldwide, we are committed to complete customer satisfaction and continual improvement. We have a long history of serving a diverse customer base including military, medical, aerospace, industrial, transportation, automotive, agricultural, imaging and office products. Along with a commitment to supply our customers with the highest quality products, Acro Industries, Inc. also provides complete engineering support including product design and design for manufacture activities. Acro Industries, Inc. also provides full project and supply chain management activities for our customers. We are proud to be a “full service supplier”.

Quality Management Principles

Acro Industries has adopted and realizes the benefits of Quality Management Principles into our daily activities. The intent of the Quality Management Principles is to provide a foundation to continually improve upon the company’s performance. Subsequent sections of the QMS Manual will provide our commitments of the following Quality Management Principle elements:

- customer focus
- leadership
- communications and engagement of our people
- process approach
- improvement
- risk and opportunity as well as evidence based decision making
- relationship management

Process Approach



Risk – based thinking

The implementation of risk based thinking is an essential tool for achieving and maintaining an effective QMS. Acro Industries effectively plans and implements various actions to address risks and opportunities to maximize the outcomes including but not limited to achieving improved results and preventing negative effects of our products, services and QMS

1. Scope

Acro Industries, Inc. Quality Management System extends over the Manufacture of Contract Sheet-Metal Stampings, Fabrications, Machinings, Electromechanical Assemblies and Systems.

2. Normative References

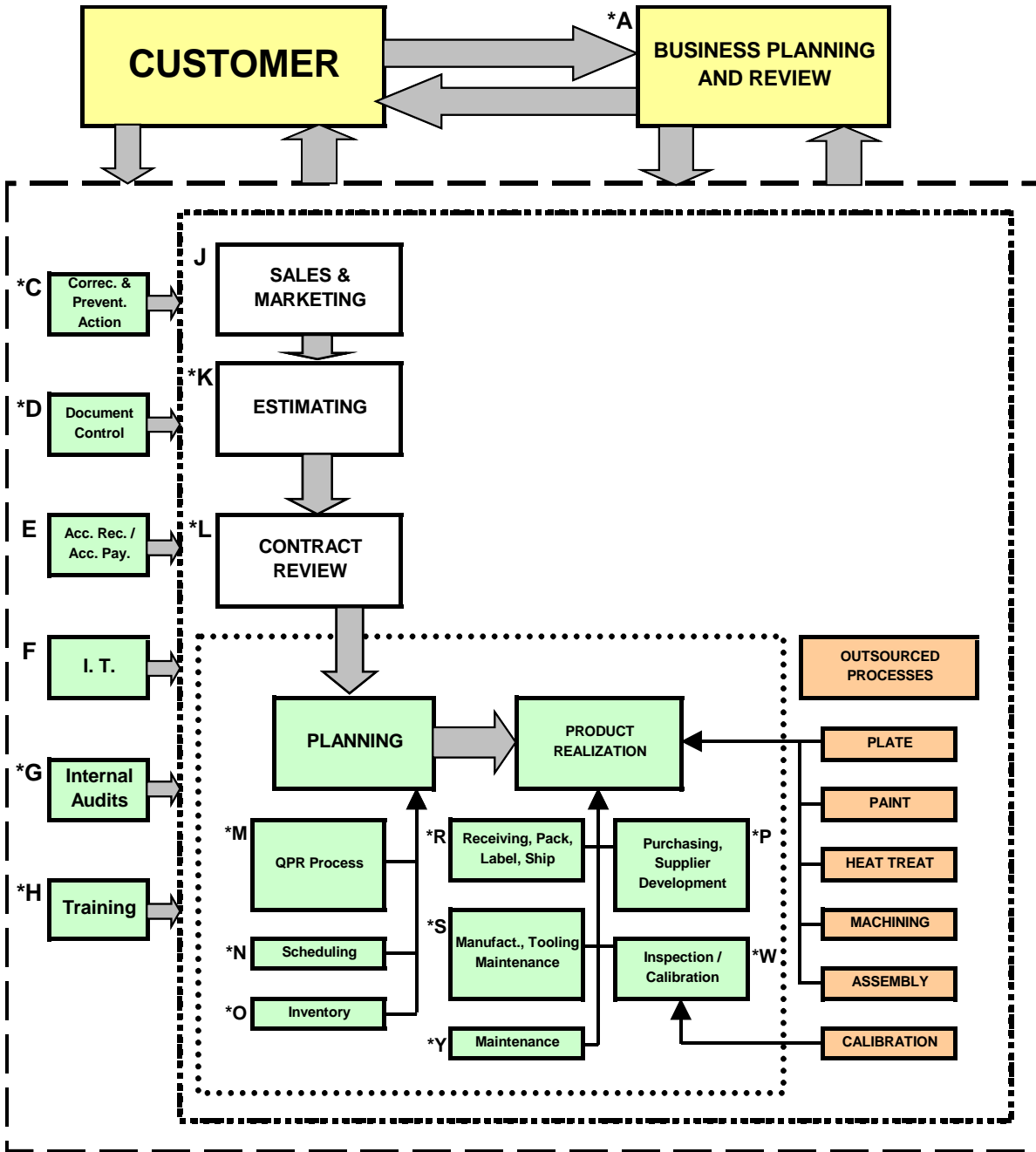
The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document applies:

ISO 9000:2015, Quality Management Systems – Fundamentals and Vocabulary

3. Terms & Definitions

For the purpose of this document, the terms and definitions provided in ISO 9000 2015 apply

ACRO PROCESS MAP



4. Context of the Organization

4.1 Understanding the Organization and Its Context

Acro Industries has determined external and internal issues that are relevant to our purpose and our strategic direction and that affect our ability to achieve the intended result(s) of our quality management system.

Acro shall monitor and review information about these internal and external issues. These issues can include positive or negative factors or conditions.

Understanding the external context can be facilitated by understanding issues arising from legal, technological, competitive, market, cultural, social and economic environments whether international, national, regional or local.

Understanding the internal context can be facilitated by considering issues related to values, culture, knowledge and performance of the organization.

4.2 Understanding the needs and expectations of interested parties

Due to their effect or potential effect on our ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, Acro Industries will determine the interested parties that are relevant to the QMS as well as the requirements of those interested parties.

Acro Industries will monitor and review information about these interested parties and their relevant requirements.

4.3 Determining the Scope of the Quality Management System

Acro Industries will determine the boundaries and applicability of the QMS to establish its scope. When determining the scope, the internal and external issues, the requirements of relevant interested parts and the products and services shall be considered.

Acro Industries will apply all the requirements of this International Standard. The scope of the QMS shall be available as documented information included within the quality manual.

4.4 Quality Management System and Its Processes

4.4.1 Acro Industries, Inc. has established, documented, implemented and maintains a **Quality Management System (QMS)** at Acro Industries that is continually improved for effectiveness and meets the requirements of ISO 9000: 2015

While implementing and maintaining the QMS, Acro Industries, Inc.;

- Identifies processes needed for the QMS and their application throughout the organization (see Process Map which includes required inputs and expected outputs);
- Determines the sequence and interaction of these processes (see Process Map);
- Determines the criteria and methods required to ensure effective operation and control of these processes;
- Assigns responsibilities and authorities for these processes
- Ensures the availability of resources and information necessary to support the operation and monitoring of these processes;
- Measures, monitors, and analyzes these processes and;
- Implements action necessary to meet planned goals and continual improvement. This is achieved through the Management review process, operational departmental meetings, and the results of internal audits.
- Addresses risk and opportunities

Acro Industries, Inc. manages these processes in accordance with the requirements of the ISO 9000:2015 standard

4.4.2

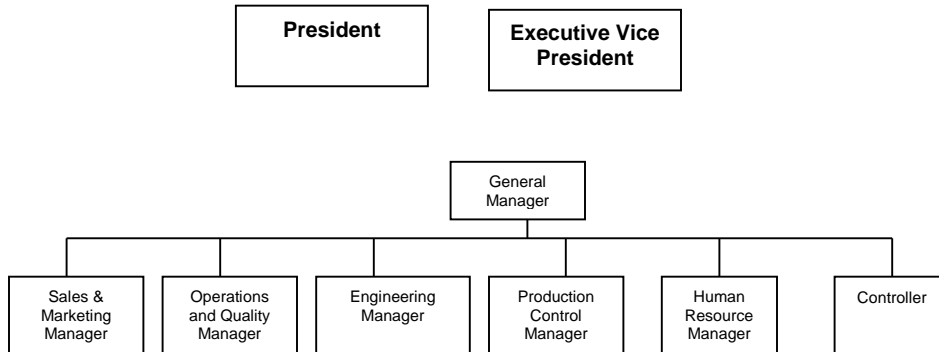
Acro maintains and retains the documented information as necessary to have confidence that the processes are being carried out as planned.

5. Leadership

5.1 Leadership and Commitment

5.1.2 General

The President and Executive Vice President have structured a Management Team as shown below.



The Management Team of Acro Industries, Inc., as shown above, has been empowered and made responsible by the President and Executive Vice President to establish, document, implement, maintain, and continuously improve a **Quality Management System (QMS)** at Acro Industries. Top management demonstrates leadership and commitment with respect to the QMS by:

- Taking accountability for the effectiveness of the QMS
- Establishing a company Quality Policy;
- Establishing Quality Objectives;
- Ensuring the integration of the QMS requirements into the business processes
- Promoting the use of the process approach and risk based thinking
- Ensuring the availability of resources.
- Communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements;
- Ensuring that the QMS achieves its intended results
- Engaging, directing and supporting people to contribute to the effectiveness of the QMS
- Promoting improvement
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibilities
- Conducting quarterly management reviews

5.1.2 Customer Focus

The Management Team will review the product realization processes and the support processes to assure their effectiveness and efficiency, determine conformity risks and opportunities with data supplied at the Management Review meetings.

The President and Vice President, together with the Management Team, ensure customer, statutory and regulatory requirements are determined by recruiting and training a competent Sales Team, Customer Support Engineers (CSE) and Quality Engineers (QE). Customer requirements are met with the aim of enhancing customer satisfaction. Acro Industries, Inc. will survey a representative cross section of customers between a 12 and 24 month period, initiated by the management team. This data will be measured, and used to identify trends in customer satisfaction and key indicators of customer dissatisfaction. In addition, customer report cards are analyzed when provided. This data will be used to identify opportunities and areas for improvement.

5.2 Quality Policy

The Quality Policy of Acro Industries, Inc. is:

“We, the employees of ACRO Industries, are responsible for the quality of everything we do. We will only accept, work on, or forward any items that meet the standards of ACRO Industries. We are committed to fulfill our customer’s expectations and will do everything in our power to work with the personnel, customers, and suppliers of ACRO Industries to ensure that all standards are consistently met and improved.”

The Quality policy will be communicated to all employees of Acro Industries, Inc. by a combination of the following;

- New employee orientation
- Posters and laminations of the Quality Policy in conspicuous locations throughout the company
- Wallet cards
- Departmental meetings
- Internal Quality Audits

This Quality Policy creates the framework for development of the company Quality Objectives. The Quality Policy will be periodically reviewed at the Management Review meetings for continuing suitability.

5.3 Organization Roles, Responsibilities, and Authorities

The following text identifies the major responsibilities and authorities of the Management Team at Acro. Further organizational interrelationships of all personnel are defined through Organizational Charts kept by the receptionist. Additional responsibilities and authorities are detailed in level two (2) and three (3) quality system procedures, work instructions and job descriptions.

President and Executive Vice President – Responsible to ensure a formal QMS is documented, implemented, maintained and continuously improved by the Management Team. Ensures the General Manager and Management Team is supported in all resource decisions, and is promoting the visions and operating philosophy's of the owners. Responsible to ensure the Business Plan is implemented by the General Manager and Management Team.

General Manager – Responsible to direct and coordinate activities of the Management Team to obtain optimum efficiency and economy of operations and maximize profits. Works with the company owners in formulating and administering corporate policies. Formulates and administers company policies and develops long-range goals and objectives. Reviews analyses of activities, costs, operations, and forecast data to determine the company's progress towards stated goals and objectives. Confers with owners and members of the management team to review achievements and discuss required changes in goals or objectives resulting from current status and conditions. Directs and coordinates promotion of products manufactured or services performed to develop new markets, increase share of market, and obtain competitive position in industry. Confers with administrative personnel and reviews activity, operating, and sales reports to determine changes in programs or operations required. Directs preparation of directives to management team outlining policy, program, or operations changes to be implemented. Promotes organization in industry, manufacturing or trade associations. Responsible for the financial accounting of the business, payroll, and information technology. Responsible for the AR & AP and Information Technology processes. Responsible for the maintenance of all facilities of Acro Industries and regulatory compliance as well to ensure the safety of the employees and OSHA compliance. Responsible for the Maintenance and Tooling departments. Responsible for the Maintenance process.

Management Team – Responsible for the effective establishment, documentation, implementation, maintenance, and continuous improvement of the (QMS) at Acro Industries. Responsible to communicate to the organization the importance of meeting customer as well as statutory and regulatory requirements, establish a company Quality Policy, establish Quality Objectives, conduct Management reviews, and ensure the availability of resources. Work with the President and Executive Vice president on the Business Plans, and promoting the visions and operating philosophies of the owners. Assure there are resources available to support the QMS.

Sales and Marketing – Responsible for bringing new business and repeat business into Acro Industries, Inc., develop and maintain relationships with our customers, and communicate customer issues as received. Ensure initial contract review is performed for new projects and accounts and new business with existing accounts. Responsible for the Sales & Marketing, Estimating, and Contract Review processes.

Operations and Quality Manager - Responsible for Fabrication, Stamping, Welding, Spotwelding & Assembly. Responsible for the quality of the product shipped to our customers and the resolution of any corrective actions generated involving manufacturing. Responsible for the execution of any manufacturing procedures and processes, all manufacturing work instructions, and in-process inspection instructions. Responsible to ensure processes needed for the QMS are established, implemented and maintained, reporting to top management on the performance of the QMS, and ensuring the promotion of awareness of customer requirements. Responsible for Management Review scheduling, agenda and minutes. Responsible for Quality Engineering, Inspection, and the Document Control center. Responsible for the Management Review, Corrective & Preventive Action, Document Control, Internal Audit, and Inspection & Calibration processes. The Operations and Quality Manager is the Management Representative. They have the organizational freedom to resolve matters pertaining to quality. Responsible for the development of manufacturing plans to produce products that meet all customer requirements. Responsible to ensure that processes are accurate and continually updated for continuous improvement. Responsible for maintaining the entire process control system. Responsible for the Quality and Manufacturing staff.

Engineering Manager – Responsible for the QPR (Quality Planning Review) and Product Design processes. Responsible for the estimating activities. Responsible for CSE's, Design Engineers and Estimators.

Human Resource Manager – Responsible for human resources. Responsible for the identification of required education, training, experience, job responsibilities, hiring, corrective action (employee discipline), and promotions. Responsible for aiding other managers to ensure that training is adequate for all personnel. Responsible for the Training process.

Production Control Manager – Responsible for the Purchasing and Production Control planning processes. The quality of purchased materials and services are the responsibility of the Purchasing Department. Purchasing shall establish and maintain records, which document the sub-contractor's ability to supply parts, and material that conforms to specifications. It is the responsibility of the production control personnel to conduct a contract review on repeat production orders. Responsible for the Scheduling and Purchasing & Supplier Development processes. Responsible for the Inventory, Receiving/Pack/Label/Ship, and Manufacturing & Tool Maintenance processes.

Controller – Responsible for the cost accounting, and special reporting of financials as required.

6. Planning

6.1 Actions to address risks and opportunities

6.1.1

When planning for the QMS, Acro Industries shall consider the issues and requirements referred to in section 4.1 & 4.2 and determine the risks and opportunities that need to be addressed to:

- Give assurance that the QMS can achieve its intended results
- Enhance desirable effects
- Prevent or reduce undesired effects
- Achieve improvement

6.1.2 Acro Industries shall plan:

- Actions to address these risks and opportunities
- How to integrate and implement these actions into the QMS process and evaluate the effectiveness of these actions

Actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of Acro's products and services.

6.2 Quality objectives and planning to achieve them

6.2.1

Quality Objectives are defined and measured by members of the Management Team and are reviewed and documented during the Management Review meetings. Once yearly, at the Management Review Meeting, Quality Objectives will be reviewed, and if required, changes made. Responsibility for Quality Objectives is identified on the Management Review minutes. Quality objectives are created to ensure product requirements are met, and are established at relevant functions and levels within the organization. The Quality Objectives:

- Are measurable
- Consistent with the Quality Policy
- Take into account all applicable requirements
- Are relevant to conformity of products and services and enhancement of customer satisfaction

- Are monitored
- Are communicated
- Are updated as appropriate

Acro Industries maintains documented information on the Quality Objectives

6.2.2

When planning how to achieve the Quality Objectives, Acro Industries shall determine:

- What will be done
- What resources will be required
- Who will be responsible
- When it will be completed
- How the results will be evaluated

6.3 Planning of Changes

Any significant Quality System changes and significant projects that could impact the overall integrity of the QMS will be reviewed at the Management Review meetings. In addition, the following is considered when the need for change is determined:

- The purpose of the changes and their potential consequences
- The availability of resources
- The allocation or reallocation of responsibilities and authorities

7. 0 Support

7.1 Resources

7.1.1 General

Acro Industries, Inc. determines and provides resources required to implement and maintain the QMS and continually improve its effectiveness; as well as enhance customer satisfaction by meeting customer requirements by empowering the Management Team to identify these needs as required via. management review meetings, management team meetings, discussions with the owners, or any other applicable review. *Management also considers:*

- *The capabilities of and constraints on existing internal resources*
- *What may need to be obtained from external resources*

7.1.2 People

All employees of Acro Industries, Inc. performing work that affect product quality are assigned these responsibilities based on appropriate education, training, skills, and experience. Acro Industries, Inc. level 2 procedure 4.18_001 details the process used for this.

7.1.3 Infrastructure

Acro Industries, Inc. determines, provides and maintains the infrastructure required to achieve conformity to product requirements. Infrastructure includes;

- Buildings, workspace and associated utilities;
- Process equipment including hardware and software;
- Supporting services including transport and communication.

Infrastructure discussions are held during Management Team Meetings, QPR's, Management Review, and discussions with the President and Vice president.

Plant, facility and equipment planning

Plant development, facility, and equipment plans are done through a multidisciplinary approach with involvement from different functional areas as part of the QPR process.

The Customer Support Engineering function with "floor" responsibility is primarily responsible for evaluating and monitoring the effectiveness of existing operations.

Contingency plans

Acro Industries, Inc. maintains contingency plans to protect the customers supply of product in the event of an emergency. They are based on overtime, shift, and resource adjustments. Further detail can be found in the Level 3 procedure 4.9_111, "Business Resumption Plan".

7.1.4 Environment for the operation of processes

Acro Industries, Inc. determines, provides and maintains the environment necessary for the operation of its processes and to achieve conformity of products and services. Work environment characteristics include temperature, humidity, lighting, cleanliness and orderliness of workspaces, and positive recognition of improved product characteristics and customer satisfaction. It can also be a combination of human and physical factors.

Personnel safety to achieve product quality

Product safety and means to minimize potential risks to employees is addressed (but not limited to) as follows;

- Promotion of safety at all levels in the organization;
- Tool, technology, and process controls such as fiber optic die protections systems, light curtains, lift systems, etc.;
- Training or all personnel on OSHA and Acro required training programs, and;
- Accident reporting and corrective action;

Cleanliness of Premises

Acro Industries, Inc. maintains its premises in a state of order, cleanliness and repair appropriate to the products we manufacture and technology we utilize.

7.1.5 Monitoring and measuring resources

7.1.5.1 General

Acro Industries, Inc. determines the monitoring and measurement to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements during the QPR process. Acro Industries will also determine and provide the resources needed to ensure valid and reliable results and that those resources are:

- Suitable for the specific type of monitoring and measuring activities being undertaken
- Are maintained to ensure their continuing fitness for their purpose

Monitoring and measurement is carried out as documented in;

- Standard Quality Checks;
- Job Router Work Instructions;
- Part Specific Operator Instructions;
- Inspection Instructions.

7.5.1.2 Measurement traceability

Acro has established and documented procedures to ensure that all production and quality assurance measuring and test equipment having a direct effect on product quality is selected and maintained in a properly calibrated condition using traceable standards so that all measurements taken are valid and of known accuracy. Where test hardware or software is used for inspection, capability verification will be

determined prior to use and rechecked at prescribed intervals. Records of such control will be maintained. When requested by the customer, measurement data will be made available for verification of functional adequacy.

Measurement System Analysis

Appropriate statistical studies are conducted per the MSA reference manual for all inspection, measuring and test equipment that is owned by Acro Industries, Inc. and used for automotive product, and other customers as required.

Calibration/verification records

Calibration records are kept on all company owned and employee owned gauges and measuring and test equipment needed to provide evidence of conformity of product to determined requirements. These records include;

- Unique equipment ID, and measurement standard;
- Revisions (as applicable)
- Calibration readings, including out-of-specification readings;
- Impact assessments if out-of-specification readings are found;
- Customer notification if suspect product or material has been shipped

Internal laboratory

Acro Industries, Inc. level 2 procedure 4.11_001 addresses Internal Laboratory requirements.

External laboratory

All inspection, test or calibration services performed by external/commercial/independent laboratories will have a defined lab scope that includes the capability to perform the required inspection, test or calibration, and either;

- Evidence that the laboratory is acceptable to the customer, or
- Have accreditation to ISO/EC 17025 or national equivalent.

Acro's Control of Inspection, Measuring and test Equipment process is defined in procedure 4.11_001.

7.1.6 Organizational knowledge

Acro Industries has determined the knowledge necessary for the operation of its processes and achieve conformity of products and services and is maintained and made available as necessary.

When addressing changing needs and trends, Acro Industries shall consider it's current knowledge and determine how to acquire or access and necessary additional knowledge and required updates.

Organizational knowledge can be based on:

- Internal sources such as intellectual property, knowledge gained from experience, lessons learned from failures and successful projects, capturing and sharing undocumented knowledge and experience, the results of improvements in processes, products and services
- External sources such as standards, academia, conferences, gathering knowledge from customers or external providers

7.2 Competence

Acro Industries, Inc.;

- Determines the necessary competence for personnel performing work affecting product quality;
- Provides training and takes other actions to satisfy these needs;
- Evaluates the effectiveness of the actions taken;
- Maintains appropriate records of education, training, skills and experience.

Actions taken to satisfy the above include, but are not limited to;

- Completion of "Acro Staffing Requisition" forms, identifying required skills and knowledge for the positions being filled;
- Using detailed job descriptions for key positions;
- Providing on the job, class oriented on-site, seminar off-site, and collegiate training, and;
- Documenting and reviewing training effectiveness feedback from employees and supervisors;

7.3 Awareness

Acro Industries ensures that it's personnel are aware of:

- The quality policy
- Relevant quality objectives

- Their contribution to the effectiveness of the QMS, including the benefits of improved performance
- The implications of not conforming with the QMS requirements

Product design skills

Acro Industries, Inc., ensures employees with product design responsibility are competent and skilled in applicable tools and techniques by;

- Reviewing the required skills for individual products and projects at the Design Review process;
- Matching internal resources as required to meet needs, or;
- Outsourcing responsibilities to qualified service providers.

Training

Acro Industries, Inc. level 2 procedure 4.18_001 details the process used for this.

Employee motivation and empowerment

Employee motivation towards achieving quality objectives, continual improvement, and promote innovation is done in different forms as follows;

- New employee orientation,
- Involvement of all levels of personnel in quality planning, decision making (QPR process),
- A comprehensive performance evaluation process which details specific performance criteria, as well as evaluating and developing goals for each employee, including quality and continual improvement,
- Performance evaluations done at shortened intervals when justified by employee performance,
- Periodic rewards for successful program launches,
- Annual company rewards,
- Company supported events,
- Acro Ink newsletter,
- Employee surveys.

Measurement of the extent of which the personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives is done as part of the Internal Audit process.

7.4 Communication

Acro Industries management has determined internal and external communications relevant to QMS including the subject of the communication, when communication occurs, method of communication and who is communicated to.

7.5 Documented Information

Acro Industries, Inc.'s documented QMS includes;

- A documented quality policy and quality objectives;
- A Quality manual;
- Documented procedures, including those required by the ISO/TS 16949 and AS9100 Standards;
- Documentation Acro Industries, Inc. requires to ensure the effective planning, operation and control of our processes;
- Records required by the ISO/TS 16949 and AS9100 Standards.
- Applicable Regulatory Authority requirements.

The extent of our documentation has been determined by;

- The needs of a small, fast-paced organization concerned with the manufacturing of products to our customers requirements;
- The complexity of our operations;
- The competence of the employees of Acro Industries, Inc.

Documentation is categorized as follows;

Level 1 – Business Plan and Quality Management System Manual

Level 2 – Supporting Quality System Procedures

Level 3 – Work Instructions, Customer Prints, Standards, etc.

Quality manual

Acro Industries, Inc. has established and maintains a Quality Manual that includes;

- The scope of our QMS, including details and justification of any exclusions;
- Reference to the documented procedures established for the QMS; (See the Procedure and Standard Requirements for AS9100 Relationship Chart at the end of the manual);
- A description of the interaction between the processes of the QMS in the way of a process flow diagram. (See Process Map)

Control of documents

Documents required that support the QMS at Acro Industries, Inc. are controlled.

The Level 2 procedure 4.5_001 further details the following;

- The process to ensure the approval of documents for adequacy prior to use;

- The process to ensure the review and update as necessary and re-approval of documents;
- The process to ensure that changes and the current revision status of documents are identified;
- The process to ensure that relevant versions of applicable documents are available at points of use;
- The process to ensure that documents remain legible and readily identifiable;
- The process to ensure that documents of external origin are identified and their distribution controlled;
- The process to prevent unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

Document changes are coordinated with customer and/or regulatory authorities in accordance to contract or regulatory requirements.

Engineering specifications

Customer Support Engineers are responsible to review, distribute to Document Control, and implement all customer engineering standards / specifications, and any changes communicated by the customer, in a timely manner, not to exceed two weeks. Part of this process is to update any affected PPAP files and/or QMS procedures and record the date of implementation. Dates for change implementation into production are identified on the Acro Engineering Change Notice. Engineering standards are date stamped when received, and date stamped when distributed through document control.

Control of records

Records which have been established and maintained to provide evidence of conformity to requirements and the effective operation of the QMS will be maintained as detailed in the Level 2 procedure 4.16_001. The Level 2 procedure further details the process to ensure records remain legible, readily identifiable and retrievable; as well as the controls needed for the identification, storage, protection, retrieval, retention time, and disposition of records. Records created by suppliers are identified in this procedure. All records are available for review by customers and regulatory authorities.

Records retention

Record retention satisfies applicable regulatory and customer requirements.

Configuration Management

Acro Industries, Inc. primarily manufactures “contract” parts to customer’s designs. All products are manufactured to the revision levels as documented to Acro via. contract requirements. Any deviations from these requirements are documented and approved by the customer.

8. Operation

8.1 Operational planning and control

Process and Quality Planning is achieved through a cross-functional approach by means of the Acro **Quality Planning Review** process (QPR), tier 3 procedure 4.2_106. An Acro **Customer Support Engineer** (CSE) initiates the QPR process, and is assigned to the project / program / part by the Director of Engineering and Design. A **Quality Engineer** (QE) will be assigned to each project / program / part by the Director of Quality. Further team members will be included as required by the CSE to support the process. The QPR process will evaluate the customer or project requirements, and ensure that all requirements can be met. The CSE will detail the manufacturing process, and the Quality Engineer will define the inspection requirements. The detail of this process will vary with the requirements of the customer. The outputs of this planning process will be in form suitable for Acro’s methods of operations and contain at a minimum;

- Quality objectives and requirements of the product;
- Established processes, documents, and the need for additional resources not already in place;
- Required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance;
- Records needed to provide evidence that the realization processes and resulting product meet requirements.
- The identification of resources to support operation and maintenance of the product.

The Quality Planning Review process is detailed on a QPR form, and follows a guideline for consistency of the process. Records are kept of Quality Planning Reviews.

All automotive products will utilize the applicable elements of the AIAG APQP process for process design unless a specific customer requirement exists.

Planning of product realization – Supplemental

Customer requirements and references to their technical specifications are included in the QPR process.

Acceptance criteria

Acceptance criteria is defined in Inspection procedures and quality plans. Attribute sampling acceptance levels are zero defects.

Confidentiality

Acro Industries, Inc. ensures confidentiality of customer-contracted products and projects under development, or related product information.

Change control

Changes during the product realization process are approved by the CSE. The CSE is responsible to communicate changes to manufacturing and to the customer as required for specific matters. Formal change notice is accomplished by use of the Acro Change Notice form, completed by the CSE.

8.2 Requirements for products and services

8.2.1 Customer Communication

Acro Industries, Inc. determines and implements effective communication with our customers in relation to;

- Product information via the Sales and marketing and Customer Support Engineering groups;
- Inquiries, contracts or order handling, including amendments via the CSE and Planning organizations;
- Customer feedback, including customer complaints via all personnel who interface with the customer channeled through the Operations and Quality Manager.
- Customer Satisfaction surveys focusing on our "Service" scores.
- The handling or controlling of customer property
- Establishing specific requirements for contingency actions

Acro Industries, Inc. has the ability to communicate necessary information, including data, in any manner required by the customer. Any technology required to support this communication with the customer for business applications will be acquired.

8.2.2 Determining the requirements for products and services

The CSE and QE will determine, as part of the QPR process detailed under 7.1;

- Requirements specified by the customer, including the requirements for delivery and post-delivery activities;

- Requirements not stated by the customer but necessary for specified or intended use, where known;
- Statutory and regulatory requirements related to the product;
- Any additional requirements determined by the organization.

These details will be documented in QPR meeting documentation, and in other documentation generated by the CSE and QE.

Customer-designated special characteristics

During the advanced quality planning process, the cross-functional team will determine and finalize all Special Characteristics and appropriate process controls are defined. All process documentation, FMEA's and Control Plans are marked with the customer's special / critical characteristic symbol.

Acro-designated special characteristics

During the advanced quality planning process, the cross-functional team will determine and finalize all Acro-designated special characteristics and appropriate process controls are defined. All process documentation, FMEA's and Control Plans are marked with Acro's special characteristic symbol.



- Acro Special Characteristic Symbol.

8.2.3 Review of requirements for products and services

Acro Industries, Inc. has established and implemented procedures 4.3_001 and 4.3_002 to define the responsibilities and processes used to perform contract review. These procedures detail and ensure;

- Product requirements are defined;
- Contract or order requirements differing from those previously expresses are resolved;
- The organization has the ability to meet the defined requirements;
- Risks

In cases where the customer provides no documented statement of requirements, Acro will verify requirements prior to acceptance of the order.

8.2.3.2

Acro will maintain documented information as applicable on the results of the review and on any new requirements

8.2.4 Changes to requirements for products and services

When product requirements are changed, Acro will ensure that relevant documents are amended and the relevant personnel are made aware of the changes through the ECN process.

Acro Industries, Inc. will obtain customer approval to waive any of the requirements of 7.2.2.

Organization manufacturing feasibility

Manufacturing feasibility including risk analysis is done in accordance with automotive customer requirements and documented as part of APQP or QPR.

8.3 Design and development of products and services

Acro Industries, Inc. currently does not have product design and development responsibilities

8.4 Control of externally provided processes, products and services

8.4.1 General

Acro Industries, Inc. ensures that purchased product conforms to specified requirements as outlined in the Level 2 procedure 4.10_001.

Acro Industries, Inc. evaluates and selects suppliers as outlined in the Level 2 procedure 4.6_001. Criteria for selection, evaluation, and re-evaluation is established. Records of the results of evaluations and any necessary actions arising from evaluations are maintained.

Regulatory conformity

All purchased products and materials used in product at Acro Industries, Inc. conform to applicable regulatory requirements.

All purchased materials satisfy current governmental and safety constraints on restricted, toxic and hazardous materials, as well as United States environmental, electrical and electromagnetic regulations. The Human Resource Administrator is responsible for maintaining the records associated with Federal Occupational Safety and Health Administration requirements. The Operations Manager is responsible for maintaining the records associated with New York State Department of Conservation (NYSDEC) and Federal Environmental Protection Agency (EPA) requirements.

8.4.2 Type and extent of control

Acro Industries, Inc. has established and implemented a Receiving Inspection process as outlined in the Level 2 procedure 4.10_001.

Acro Industries, Inc. does not currently verify product at our subcontractor's premises. However, in the event it is required, Acro Industries, Inc. will state the intended verification arrangements and method of product release in the purchasing information.

Incoming product quality

Acro Industries, Inc. has developed a process to assure the quality of purchased product as identified in the Level 2 procedures 4.6_001, 4.10_001, and outlined in the Acro Supplier Quality Manual.

Supplier quality management system development

During the Management Review process Acro Industries, Inc. management determines those suppliers and subcontractors requiring development activities. Any suppliers to Acro Industries, Inc. supplying automotive products will be required to have a Quality Management System registered to ISO 9001:2000, and have a plan in place for development and compliance to ISO/TS 16949; as well as be capable of meeting all automotive APQP / PPAP requirements. The prioritization of suppliers for development is dependent on the needs of the supplier, their historical performance, and the importance of the product or service that they supply to Acro Industries, Inc. Any development activities are defined and tracked through the Management Review minutes.

Supplier compliance to ISO 9001:2015 and development towards compliance with ISO / TS 16949 will be waived as allowed by the customer.

Customer-approved sources

Acro Industries, Inc. will purchase products, materials or services from approved sources when specified by contract. Acro Industries, Inc. will ensure the quality of these products in lieu of them being customer-designated.

8.4.3 Information for external providers

Acro Industries, Inc. has developed a Supplier Quality Manual fully detailing the requirements of any supplier to Acro to meet. In addition, Acro Industries, Inc. reviews and approves purchasing documents for adequacy of the specified requirements prior to

release. Purchasing documents contain data that accurately describes the product, material, or service, supplier, and other relevant process and technical requirements.

Supplier monitoring

Automotive supplier's performance is measured as follows;

- DMR counts against supplied product,
- Delivery performance,
- Any customer disruptions including field returns as applied to the supply of their product, and
- Any special status customer notifications related to quality or delivery issues.

8.5 Production and service provision

8.5.1 Control of production and service provision

Planning for production considers as applicable;

- The establishment of process controls and development of control plans where key characteristics have been identified (QPR and QE processes);
- The identification of in-process verification points when adequate verification of conformance cannot be performed at a later stage of realization (Quality Plan);
- The design, manufacture, and use of tooling so that variable measurements can be taken, particularly for key characteristics (QPR and QE processes);
- Special processes (QPR and QE processes).

Acro Industries, Inc. plans and carries out production under controlled conditions including;

- The availability of information that describes the characteristics of the product (blueprints);
- The availability of work instructions (generated by our ERP system and Engineering);
- The use of suitable equipment (as defined by Engineering and Operations);
- The availability and use of monitoring and measurement devices (as defined by QE);
- The implementation of monitoring and measurement (Operations);
- The implementation of release, delivery and post-delivery activities (Operations);
- Accountability for all product during manufacture (Labor Reporting);
- Evidence that all manufacturing and inspection operations have been completed as planned, or as otherwise documented and authorized (Job paperwork sign-offs and stamps);
- Provision for the prevention, detection, and removal of foreign objects (Standard Quality Checks);

- Monitoring and control of utilities and supplies such as water, compressed air, electricity and chemical products to the extent they affect product quality (PM and Process Control procedures);
- Criteria for workmanship, which shall be stipulated in the clearest practical manner (Standard Quality Checks and Job Paperwork).

Control of Production Equipment, Tools and Numerical Control Machine Programs

Production equipment, tools and programs are validated prior to use and maintained and inspected periodically per the Level 2 Maintenance Procedure, 4.9_002. First Article date is completed on any products going through a new or existing work center.

Control of Work Transferred, on a Temporary Basis, Outside the Organization's Facilities

Level 2 Process Control procedure, 4.9_001, section 5.11, identifies how work transferred, on a temporary basis, outside the organization's facilities is controlled.

Control plan

Control Plans are developed for PPAP parts per the APQP manual for process and/or product levels. The cross-functional team prepares Control Plans. Control Plans are developed at the prototype, pre-launch, and production levels as required by the customer. Control Plans are reviewed and updated when any of the following occur:

- The product is changed
- The processes are changed
- The processes become unstable
- The processes become non-capable
- Inspection method, frequency, etc. is revised.

Work instructions

Acro Industries, Inc. prepares documented work instructions for all employees having responsibilities for the operation of processes that impact product quality. These instructions are derived from the QPR process.

Verification of job set-ups

Process control specifications as outlined in the control plan or manufacturing routers describe the requirements for the verification of job set-ups. Job set-ups

are verified whenever a set-up is performed, including as appropriate, initial run of a job, material changeover, job change, or significant time periods lapsed between runs.

Preventive and predictive maintenance

The General Manager is responsible for:

- Maintaining equipment manuals and/or specifications where these are needed to perform maintenance activities;
- Providing systems for packaging and preservation of equipment, tooling and gauging where necessary to maintain integrity;
- Establishing preventive maintenance requirements for each piece of key equipment and ensuring these maintenance activities are carried out;
- Identifying and implementing predictive maintenance activities where appropriate such as utilizing manufacturers recommendations to establish preventive maintenance requirements, fluid analysis, and/or infrared circuit monitoring;
- Identifying and maintaining replacement parts for key manufacturing equipment;
- Maintaining appropriate records on equipment maintenance.

The General Manager manages the documentation, evaluation, and improvement maintenance objectives through the Management Review Process. The preventive maintenance program effectively maintains equipment capability impacting product quality.

Management of production tooling

Acro Industries, Inc. has implemented systems for Tooling Management.

- Qualified personnel in the Toolroom do all Tooling Maintenance and Repair at Acro.
- All Tools (Die Sets) are uniquely Id'd and have unique storage locations. The short run personnel maintain short Run tooling.
- Set Up of Tools (Die Sets) is performed by trained and certified Set Up personnel.
- The Toolroom maintains all perishable items for Die Sets; the Short Run area maintains perishable tools for the short run area.
- Tool Modification is initiated by Engineering as required for Customer changes.

Validation of processes for production and service provision

Acro Industries validates processes for production as follows;

- Through complete inspection of all product characteristics and customer requirements and subsequent Prototype, PPAP, and Customer approvals on first time shipments and newly developed processes.

- Through documented process instructions outlining specific work centers or machines, set up parameters, and inspection and testing requirements.
- Through the use of qualified personnel i.e. certified welders.

Production Documentation

Production operations are carried out as defined in the Level 2 Process Control procedure, 4.9_001 section 5.5.

Production scheduling

Production scheduling is order driven.

8.5.2 Identification and traceability

Acro Industries, Inc. uses an ERP / MRP system that assigns unique Job Numbers for each manufacturing lot.

Product is identified throughout the product realization process through the use of manufacturing routers and paperwork, as well as through proper labeling.

Configuration of product is done with the Bill Of Materials set up in the ERP / MRP system and controlled documents issued with each job.

Product status is identified through the use of "Controlled Approval Stamps" on Job Routers, as well as operator initials on Move Tickets. These are controlled by the Quality organization.

Traceability

Traceability is ensured through the use of individual Job Numbers.

As required by customer contract, regulatory, or other established requirement, Acro Industries, Inc. will provide for;

- Identification to be maintained throughout product life;
- All of the products manufactured from the same batch of raw material or from the same manufacturing batch to be traced, as well as the destination of all products of the same batch;
- For an assembly, the identification of its components and those of the next higher assembly to be traced;

- For a given product, a sequential record of its production to be retrieved.

8.5.3 Property belonging to customers or external providers

Acro Industries, Inc. exercises care with customer property while under our control. Customer property is identified, verified, protected and safeguarded. Any customer property lost, damaged or otherwise found to be unsuitable for use will be reported to the customer and records maintained. This includes returnable packaging.

Customer-owned production tooling

All customer-owned tools, manufacturing, test, and inspection tooling is permanently marked so that the ownership of each item is visible, and can be determined.

8.5.4 Preservation

Acro Industries, Inc. preserves the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection, and applies to the constituent parts of a product. Acro Industries, Inc.

Acro has an established and documented procedure defining the methods, responsibilities and authorities for handling, storage, packaging and delivery of materials and product to ensure the prevention of damage, deterioration or degradation of that product. This procedure applies to purchased materials, in process work, completed goods and stocked finished product and is the responsibility of the Production Control Manager. Acro's Handling, Storage, Packaging, Preservation and Delivery process is defined in procedure 4.15_001.

All employees who handle the company's product(s) are responsible for ensuring the safe handling of that product.

Appropriate storage areas for materials and product are provided to prevent damage, deterioration or contamination.

Inventory is managed on an order driven basis. The Production Control Manager is responsible for the analysis of Inventory levels, to assure optimized inventory turns over time, and minimize inventory levels.

Materials and processes used for packaging product are specified and controlled to ensure proper identification, protection, handling and safe storage.

Unique customer packaging and labeling requirements are identified through the contract review and QPR process and communicated through the appropriate process documentation.

Conditions are maintained to ensure the integrity of materials and product throughout the manufacturing process. Any products with a shelf life are labeled with an expiration date.

Storage and inventory

Acro Industries, Inc. assesses the condition of product in stock as defined in level 2 procedures 4.15_001 and 4.10_005.

Inventory management utilizes a FIFO system, and obsolete product is scrapped or reworked as nonconforming product is controlled.

8.5.5 Post-delivery activities

Where there is a service agreement with our customers, Acro Industries, Inc. will verify the effectiveness of;

- Organization service centers;
- Special-purpose tools or measurement equipment;
- Training of service personnel.

Feedback of information from service

Any information provided by our customers related to service concerns will be documented and communicated to all relevant personnel through the corrective action process.

8.5.6 Control of changes

Persons authorized to approve changes to production processes are identified in the Level 2 Process Control procedure, 4.9_001 section 5.6.4.

Changes requiring customer and/or regulatory approval will be approved prior to implementation.

All changes affecting processes, production equipment, tools, and programs will be documented per Level 2 Process Control procedure, 4.9_001.

All results of changes to production processes will be assessed by inspection as required to ensure no adverse effects to product quality.

8.6 Release of products and services

Acro Industries, Inc. monitors and measures the characteristics of product to verify that the product requirements have been met. Monitoring and measurement is carried out as defined as an output from the QPR process, and is done at appropriate stages of the product realization process and in accordance with the Quality Planning activity and defined Standard Quality Checks.

Evidence of conformity and acceptance is maintained as records indicating authorizing persons.

Product release does not occur until all planned arrangements have been completed, unless approved by a relevant authority.

Key characteristics identified will be monitored and controlled as defined in the quality plan.

Sampling Inspection is performed per the Acro Sampling Plan and operates on a C = 0 acceptance criteria

Inspection Documentation

Measurement requirements are documented and include;

- Criteria for acceptance and / or rejection;
- Where in the sequence measurement and testing operations are performed;
- A record of the measurement results;
- Type of measurement instruments required and any specific instructions associated with their use.

Layout inspection and functional testing

Layout inspection (also referred to as "First Article" inspection) and functional verification to applicable customer engineering material and performance standards are performed for each product as specified in the control plans. Results are available for customer review.

First Article Inspection is performed on new products as well as changes that invalidate the previous First Article results.

Appearance items

Acro Industries, Inc. currently does not manufacture any products designated as “appearance items” by the customer.

In the event Acro does manufacture products with this designation in the future, Acro Industries, Inc. will provide;

- Appropriate resources including lighting for evaluation;
- Masters for color, grain, gloss, metallic brilliance, texture, distinctness of image (DOI), as appropriate;
- Maintenance and control of appearance masters and evaluation equipment;
- Verification that personnel making appearance evaluations are competent and qualified to do so.

8.7 Control of nonconforming outputs

Acro Industries, Inc. ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Level 2 procedure 4.13_001.

Nonconforming product is addressed in one or more of the following ways;

- Taking action to eliminate the detected nonconformity;
- Authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
- Taking action to preclude its original intended use or application.

Records of nonconformities and actions taken, including concessions obtained, are maintained.

When nonconforming product is reworked and corrected, it is re-verified to demonstrate conformity to the requirements.

When nonconforming product is detected after delivery or use, Acro Industries, Inc. takes action appropriate to the effects, or potential effects, of the nonconformity.

Nonconforming product includes nonconforming product returned from a customer.

Product with unidentified or suspect status is labeled with HOLD tags and treated as nonconforming product until identified and dispositioned.

Control of reworked product

Instructions for rework, including re-inspection requirements, are accessible to and utilized by the appropriate personnel. These are further defined in the level 2 procedure 4.13_001.

Customer information

In the event nonconforming product has been shipped to the customer, the customer will be informed promptly.

Customer waiver

Acro Industries, Inc. will obtain customer concession or deviation permit prior to further processing whenever the product or manufacturing process is different than that which is currently approved.

A record of the expiration date or quantity authorized will be kept. When authorization expires, compliance with the original or superseding specifications and requirements will be ensured.

Purchased product will be treated in the same manner described above.

9.0 Performance evaluation

9.1.1 General

Acro Industries, Inc. plans and implements monitoring, measurement, analysis and improvement processes needed to;

- Demonstrate conformity of the product;
- Ensure conformity of the QMS, and;
- Continually improve the effectiveness of the QMS.

The process as detailed under 7.1 applies.

Monitoring and measurement of processes

Acro Industries, Inc. measures and monitors those processes necessary to meet customer requirements. (See Process Map) These processes are measured as part of the Management Review process. Measurements are reviewed to ensure

the continuing ability of each process to satisfy its intended purpose. When planned results are not obtained, corrective and preventive actions are initiated.

In the event of a process nonconformity, Acro Industries, Inc. will;

- Take appropriate action to correct the nonconforming process;
- Evaluate whether the process nonconformity has resulted in product nonconformity;
- Identify and control the nonconforming product in accordance with clause 8.3.

Monitoring and measurement of manufacturing processes

Acro Industries, Inc. performs process studies on all new manufacturing (including assembly or sequencing) processes to verify process capability and to provide additional input for process control. These results are documented. All data related to this process is part of the PPAP submission to the customer.

Continuing manufacturing process capability is maintained at the level as documented in the PPAP submission. Verification of this is done by;

- Performing Receiving, 1st piece, In-process, and Final inspections as defined in the control plan,
- Reviewing Cpk results on significant characteristics quarterly

Significant process events are documented and recorded as follows;

- Machine repairs are documented and kept on record in the maintenance machine files'
- Tool changes are documented on the "Run Logs" kept in the manufacturing area.

Any product produced not meeting capability as defined by the customer or Acro will go into a containment process as defined in the level 2 procedure 4.13_001 (nonconforming material). Corrective Action will be taken as appropriate. The CA plan will be approved by the customer as required.

Process change records will be initiated per customer requirements and records maintained.

Identification of statistical tools

Selection of appropriate statistical tools is determined during the QPR and APQP process, as part of quality planning and will be included in control plans or manufacturing instructions. Statistical techniques used for establishing, controlling, and verifying process capability and product characteristics will be done in accordance with the AIAG SPC manual, or customer requirements.

Knowledge of basic statistical concepts

Basic statistical concepts are understood and utilized throughout the organization.

Forms of education are;

- In-house SPC training program
- Part of external training / education for continuing education.

9.1.2 Customer satisfaction

Acro Industries, Inc. will survey a representative cross section of customers between a 12 and 24 month period, initiated by the management team. This data will be measured, and used to identify trends in customer satisfaction and key indicators of customer dissatisfaction. In addition, customer report cards are analyzed when provided. This data will be used to identify opportunities and areas for improvement. In addition, continual evaluation of customer satisfaction shall be done by;

- Reviewing Quality performance reports provided by customers, discussed during the Management Review process;
- Reviewing customer returns via the Non-Conforming and Corrective Action processes;
- Reviewing delivery performance and incidents of premium freight, discussed during the Management Review process.

Customer satisfaction will be monitored through continual evaluation of the performance of the realization process by;

- Evaluating customer quality report cards and product returns;
- Customer complaints, and;
- On-time delivery performance (including incidents of premium freight).

Each of these measures is evaluated regularly, and at a minimum at the management review Meetings.

Customer disruptions and field returns will follow the Customer Complaint and Corrective Action processes.

9.2 Internal audit

Acro has established and documented procedures to ensure systematic audits of the QMS are performed to ensure compliance with the documented procedures and methods and to determine the overall effectiveness of the system. Internal QMS audits are the responsibility of the Internal Audit Manager, and are conducted by qualified personnel who are independent of the

functions being audited.

The audit program is designed to audit by “process”. Acro’s Internal Quality Audits process is defined in procedure 4.17_001.

Quality management system audit

Internal auditing will include the requirements of ISO/TS 16949 and our QMS system.

Manufacturing process audit

Manufacturing processes are audited in different manners as follows;

- By QA as part of First Piece submissions;
- By Internal Auditors as part of the process approach to auditing;
- By CSE’s and QE’s as part of ongoing process issues arise.

Product audit

Product Audits will be scheduled by the Internal Audit Manager, and completed by Internal Auditors utilizing an “Acro Product Audit Report” sheet as a guide. The schedule will be maintained by the Internal Audit Manager, and will be based upon customer complaints as well as internal DMR data. All product will be audited within a three year period from time of customer PPAP.

Internal audit plans

Internal audits cover all QMS related processes, activities and shifts, and are scheduled according to an annual plan.

Internal auditor qualification

All internal auditors will be trained on the requirements of the ISO/TS 16949:2002 standard, and developed as outlined in ISO 19011.

9.3 Management Review

Management Review meetings will be held at least Quarterly to ensure the continuing suitability, adequacy, and effectiveness of our QMS. The Engineering and Quality

Manager will schedule the meetings. Minutes and action items will be documented and maintained as Records. At this time we will review the QMS, Quality Objectives, Quality Policy, and identify any required changes and areas for improvement. Attendees of this meeting are:

- General Manager
- Sales and Marketing Manager
- Operations and Quality Manager
- Human Resource Manger
- Controller
- Production Control Manager
- Engineering Manager

Quality management system performance

All requirements of our QMS (documented processes on the Process Map) will be covered at least annually in the Management Review meetings, with focus on performance trends and continual improvement.

Quality objective data will be reviewed at each management review meeting, including the cost of poor quality.

Established objectives derived from the business plan as well as customer satisfaction data will be reviewed.

Review input

Input to the Management review meeting includes;

- Status of actions from previous management reviews
- Changes in internal and external issues relevant to the QMS
- Information on the performance and effectiveness of the QMS, including trends in:
 - Customer satisfaction and feedback from relevant interested parties
 - The extent to which quality objectives have been met
 - Process performance and conformity of products and services
 - Nonconformities and corrective actions
 - Monitoring and measurement results
 - Audit results

- The performance of external providers
- The adequacy of resources
- The effectiveness of actions taken to address risks and opportunities
- Opportunities for improvement

Analysis of actual and potential field-failures and their impact on quality, safety or the environment will be part of the management review meeting and minutes.

Review output

Output from the Management review meeting includes;

- Improvement of the effectiveness of the QMS and its processes;
- Improvement of product related to customer requirements;
- Resource needs.

These outputs will be summarized, and may take the form of action items documented in the Management Review minutes.

10. Improvement

10.1 General

Acro Industries determines and selects opportunities for improvement and implement necessary actions to meet customer requirements and enhance customer satisfaction. Examples include:

- improving products and services to meet requirements as well as to address future needs and expectations
- correcting, preventing or reducing undesired effects
- improving the performance and effectiveness of the QMS

10.2 Nonconformity and corrective action

Acro Industries, Inc. takes action to eliminate the causes of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformances encountered. The Level 2 procedure, 4.14_001 defines the requirements for;

- Reviewing nonconformities (including customer complaints);
- Determining the causes of nonconformities;
- Evaluating the need for action to ensure that nonconformities do not recur;
- Determining and implementing action needed;

- Recording the results of action taken;
- Reviewing the effectiveness of corrective action taken;
- Flowing down to suppliers corrective action responsibility when it is determined the supplier is responsible for the root cause;
- Specific actions where timely and/or effective corrective actions are not achieved.

Problem solving

Acro Industries, Inc. utilizes the “Five Why’s” method for problem solving. Fish Bone analysis and Brainstorming techniques are also applied as practical. If a customer-prescribed problem-solving format exists, Acro will use the prescribed format.

Error-proofing

Error-proofing methods are used as part of the corrective action process.

Corrective action impact

Corrective actions and controls implemented are applied to similar processes to eliminate causes of nonconformities.

Rejected product test/analysis

Any product returned to Acro Industries, Inc. from one of our customers is analyzed by Quality Engineering, and appropriate actions taken as they feel necessary ranging from a review with applicable departments to request for a formal corrective action.

Preventive action

Acro Industries, Inc. takes action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems. The Level 2 procedure, 4.14_002 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;
- Recording results of action taken;
- Reviewing preventive action taken.

Acro Industries, Inc. ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Level 2 procedure 4.13_001.

Nonconforming product is addressed in one or more of the following ways;

- Taking action to eliminate the detected nonconformity;
- Authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
- Taking action to preclude its original intended use or application.

Records of nonconformities and actions taken, including concessions obtained, are maintained.

When nonconforming product is reworked and corrected, it is re-verified to demonstrate conformity to the requirements.

When nonconforming product is detected after delivery or use, Acro Industries, Inc. takes action appropriate to the effects, or potential effects, of the nonconformity.

Nonconforming product includes nonconforming product returned from a customer.

Product with unidentified or suspect status is labeled with HOLD tags and treated as nonconforming product until identified and dispositioned.

Control of reworked product

Instructions for rework, including re-inspection requirements, are accessible to and utilized by the appropriate personnel. These are further defined in the level 2 procedure 4.13_001.

Customer information

In the event nonconforming product has been shipped to the customer, the customer will be informed promptly.

Customer waiver

Acro Industries, Inc. will obtain customer concession or deviation permit prior to further processing whenever the product or manufacturing process is different than that which is currently approved.

A record of the expiration date or quantity authorized will be kept. When authorization expires, compliance with the original or superseding specifications and requirements will be ensured.

Purchased product will be treated in the same manner described above.

10.3 Continual Improvement

Acro Industries, Inc. continually improves the effectiveness of the QMS through the use of the Quality Policy, Quality Objectives, Audit Results, Analysis of Data, Corrective and preventive Actions and management Review.

Continual improvement of the organization

Acro Industries, Inc. utilizes both the “Breakthrough Project” approach and the “Small Step” or “Kaizen” approaches to continual improvement.

- Breakthrough projects are generally focused on new equipment or technology changes, and will usually involve a team of personnel in the decision making process.
- Kaizen improvements are on going and generally driven by floor engineering or area supervisors.

Manufacturing process improvement

Acro Industries, Inc. is a contract manufacturer by nature, servicing many different customers in both low volume and high volume production. In cases where production volumes / and or automotive customers volumes justify a focus on reduction of variation and in product characteristics and manufacturing process parameters, process improvement focus will be applied by;

- Comparing current statistical analysis against historic data,
- Performing manufacturing reviews focusing on elements of lean manufacturing for improvement.



Quality Management System Manual Revision Record

Revision	Changes	Date	Approval
A	Complete rewrite of manual for QS 9000 registration and to reflect current business operations.	12/12/02	A. Caruso
B	Added "Through active communication with our customers, primarily the Sales and Marketing and Management Team, current and future expectations are determined.", "Controlled distribution of the Business Plan will be the President, Executive Vice President, and members of the Management Team." To 4.1.4. Added, "All items included in section 2 of the QS manual will be evaluated as required." To 4.2.3. Added "Certificates of Analysis's: to 4.10.2	12/23/02	A. Caruso
C	Removed "N/A" from element 4.19 on grid and assigned primary responsibility to Sales and Marketing Manager. Removed "as required by contract" from element 4.19.1. Added "job descriptions" to 4.1.2.	02/10/03	A. Caruso
D	Complete reformat for ISO / TS 16949 implementation / registration.	08/20/03	A. Caruso
E	Added "Specific detail on processes can be found in the "Acro Process Detail" file.", added "Customer disruptions and field returns will follow the Customer Complaint and Corrective Action processes" to Customer Satisfaction. Added Acro Special Characteristic Symbol and "All process documentation, FMEA's and Control Plans are marked with Acro's special characteristic symbol. " to 7.2. Added "Engineering standards are date stamped when received, and date stamped when distributed through document control." To 4.2	09/15/03	A. Caruso
F	Added "All automotive products will utilize the applicable elements of the AIAG APQP process for process design unless a specific customer requirement exists." To 7.1.	09/24/03	A. Caruso
G	Changed "Acro Industries, Inc. will survey a representative cross section of customers at least once during each fiscal year" to "Acro Industries, Inc. will survey a representative cross section of customers between a 12 and 24 month period, initiated by the management team" to 8.2 – "Customer Satisfaction.	10/29/03	A. Caruso
H	Revised section 8.2, "Product Audits" to provide more detail.	08/16/04	A. Caruso
J	Revised process map on page 3.	04/06/05	A. Caruso
K	Revised Organizational Chart and 5.5 detail.	09/19/06	A. Caruso
L	Updated for AS 9100 QMS Additions	08/12/08	A. Caruso
M	Added "temperature, humidity, lighting" to 6.4 for AS Project.	12/30/08	A. Caruso
N	Revised process map to include outsourced processes	02/11/09	A. Caruso
O	Revisions due to Organizational Changes	10/25/10	A. Caruso
P	Removed "Design" components. Added as an exception.	10/28/11	A. Caruso
Q	Revised Org Chart and Responsibilities	03/27/12	A. Caruso
R	Updated Job Titles	12/13/12	H. Lewis



Quality Manual

S	Changed Internal Communication verbiage and added "Periodic company meetings called by the Owners or General Managers"	01/04/12	H. Lewis
T	Removed Publication of the "Acro Ink" newsletter; from section 5.5 page 13	03/25/13	A. Caruso
U	Replaced Process Map with revised map	06/03/14	H. Lewis
V	Removed all references to procedure 4.21_001 (Production Control Procedure)	9/19/14	H. Lewis
W	Removed "Reviewing and processing Customer Complaints" under 8.2 Customer Satisfaction	12/18/14	A. Caruso
X	Removed "Quality Specialist" from Section 5.6-Management Review & Section 8.2-Monitoring and measurement under Internal Audit	11/2/15	A. Caruso
Y	Updated titles and responsibility descriptions	10/5/16	M. Billitier
Z	Updated to meet ISO 9001:2015	10/2017	M. Billitier