

# Sierra Aluminum Company

## Quality Management System (QMS) Manual

**M-MGT-001, Rev. C**

### Company Facilities

**Corporate, Casthouse & Extrusion**

2345 Fleetwood Drive  
Jurupa Valley, CA 92509

**Vertical Paintline & Anodizing**

11806 Pacific Ave.  
Fontana, CA 91337

**Distribution, Fabrication & Quality Control**

11710 Pacific Ave.  
Fontana, CA 92337

**Extrusion, Thermal Break & Horizontal Paintline**

**Tooling & Engineering**

11711 Pacific Ave.  
Fontana, CA 92337

**Extrusion & Die Shop**

11880 Pacific Ave.  
Fontana, CA 92337

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## 1.0 PURPOSE & SCOPE:

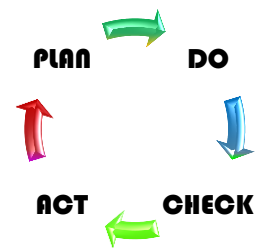
This manual defines the Quality Management System (QMS) at Sierra Aluminum Company (SAC), as well as outlining how various processes are managed within the context of QMS. In addition, this manual demonstrates how this company complies with the International Standard ISO 9001:2015, Quality Management Systems Requirements. It incorporates the process approach where consistent and predictable results are achieved more effectively and efficiently, when activities are understood and managed as interrelated processes.

This process approach provides for the management of the quality system and its processes through the application of a “Plan-Do-Check-Act” methodology and a focus on “Risk-Based-Thinking” leading to the prevention of undesirable outcomes.

SAC has developed a QMS which satisfies the requirements of applicable quality standards. In other words, the quality standard serves the business, not the business satisfying the standard for certification.

This manual is internally used to guide the Sierra Aluminum Company employees through the various requirements of the ISO 9001:2015 standard that must be met and maintained to ensure customer satisfaction, continuous improvement, and provide the necessary instructions that create an empowered workforce.

This manual is externally used to introduce our Quality Management System to our customers and other external organizations or interested parties. In addition, this manual is intended to familiarize them with the controls that have been implemented and to assure them that the integrity of the Quality Management System is maintained and focused on customer satisfaction and continuous improvement. This manual is approved by the President of Sierra Aluminum Company.



## 2.0 REFERENCE DOCUMENTS:

- 2.1 International Standard - ISO 9001, Fifth Edition, 2015-09-15, Quality management systems – Requirements.
- 2.2 International Standard – ISO 9000, Fourth Edition, 2015-09-15, Quality management systems - Fundamentals and vocabulary.
- 2.3 Technical Specification – ISO/TS 9002, First Edition, 2016-11-01, Quality management systems – Guidelines for the application of ISO 9001:2015.

## 3.0 TERMS & DEFINITIONS:

The following terms and definitions have been adopted by Sierra Aluminum Company within its QMS. In some cases where no definition is provided, SAC uses the definitions provided in “ISO 9000:2015 Quality Management – Fundamentals and Vocabulary”. In addition, some specific procedures or documents may provide a different definition to be used in the context of that document. In those cases, the definition will supersede those provided in this manual or ISO 9000.

**Document Title:** Quality Management System Manual

**Document No.:** M-MGT-001

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**Department:** Management

**Process Owner:** President

In addition, ISO/TS 9002 is utilized as guidelines for application of ISO 9001:2015 Quality Management System Requirements.

**Customer:** The recipient of a product or service provided by the company.

**Contract:** An accepted order from the customer.

**Controlled Document:** Any document that requires review and approval prior to release for use.

**Document** – Written information which is used to describe how an activity is done.

**Management System:** A set of interrelated or interacting elements that organizations use to formulate policies and objectives and to establish the processes that are needed to ensure that policies are followed, and objectives are achieved. These elements include structures, programs, procedures, practices, plans, rules, roles, responsibilities, relationships, contracts, agreements, documents, records, methods, tools, techniques, technologies, and resources. The scope or focus of a management system could be restricted to a specific function or section of an organization or it could include the entire organization. It could even include a function that cuts across several organizations.

**Proposal:** Offer made by an organization in response to an invitation to satisfy a contract award to provide product.

**Product:** The result of activities and/or processes.

**Process:** A set of interrelated or interacting activities which transforms inputs into outputs.

**Process Owner:** Person or group of people responsible for documentation (preparation, approval, maintenance, review, and updating of documentation) of a process; and for implementation of the process (normally the Department Manager).

**Process-based QMS:** A *Process-based Quality Management System* uses a process approach to manage and control how its quality policy is implemented and how its quality objectives are achieved. A process based QMS is a network of interrelated and interconnected processes. Each process uses resources to transform inputs into outputs. Since the output of one process becomes the input of another process, processes interact and are interrelated by means of such input-output relationships. These process interactions create a single integrated process based QMS.

**Quality:** The adjective *quality* applies to objects and refers to the degree to which a set of inherent characteristics fulfills a set of requirements. An *object* is any entity that is either conceivable or perceivable and an inherent characteristic is a feature that exists in an object.

The quality of an object can be determined by comparing a set of inherent characteristics against a set of requirements. If those characteristics meet all requirements, high or excellent quality is achieved but if those characteristics do not meet all requirements, a low or poor level of quality is achieved. So, the quality of an object depends on a set of characteristics and a set of requirements and how well the former complies with the latter.

**Quality Management:** *Quality management* includes all the activities that organizations use to direct, control, and coordinate quality. These activities include formulating a quality policy and setting quality objectives. They also include quality planning, quality control, quality assurance, and quality improvement.

**Quality Management System (QMS):** A set of interrelated or interacting elements that organizations use to formulate quality policies and quality objectives and to establish the processes that are needed to ensure that policies are followed, and objectives are achieved. These elements include structures, programs, practices, procedures, plans, rules, roles, responsibilities, relationships, contracts, agreements, documents, records, methods, tools, techniques, technologies, and resources.

**Business Management System (BMS):** A set of tools for planning and implementing policies, practices, guidelines, processes and procedures that are used in the development, deployment and execution of business plans and strategies and all associated management activities.

**Quality Objective:** A quality result that you intend to achieve. Quality objectives are based on or derived from an organization's Quality Policy and must be consistent with it. They are usually formulated at all relevant levels within the organization and for all relevant functions.

**Quality Policy:** A statement that expresses top management's commitment to the QMS and should allow managers to set quality objectives. It should be based on ISO's quality management principles and should be compatible with your organization's other policies and be consistent with its vision and mission.

**Record** – Captured evidence of an activity having been done.

**Regulatory Requirement:** Obligatory requirement specified by an authority mandated by a legislative body.

**Service:** An intangible output and is the result of a process that includes at least one activity that is carried out at the interface between the supplier (provider) and the customer.

**Statutory Requirement:** Obligatory requirement specified by a legislative body.

**Strategy:** A plan for achieving an objective.

**Subcontracted Process:** A process that the organization does not have the capability to perform and is contracted to an outside source.

**System:** A set of interrelated or interacting elements.

**Turtle Diagram** - A visual tool that can be used to detail, in a very precise manner, all of the elements of any given process within an organization.

**Vendor (Supplier):** An organization which provides a product or service to Sierra Aluminum Company.

**Risk-Based Thinking Terminology**

**Risk-based Thinking:** *Risk-based thinking* refers to a coordinated set of activities and methods that organizations use to manage and control the many risks that affect its ability to achieve objectives.

**Risk** – Negative effect of uncertainty

**Opportunity** – Positive effect of uncertainty

**Uncertainty** - A deficiency of information related to understanding or knowledge of an event, its consequence, or likelihood. (Not to be confused with measurement of uncertainty.)

#### **4.0 CONTEXT OF THE ORGANIZATION:**

##### **4.1 Understanding the organization and its context**

Founded in 1986, Sierra Aluminum Company is a manufacturer of standard and custom aluminum extrusions located in Southern California, with two major manufacturing campuses located in the cities of Riverside and Fontana. Company's major manufacturing capabilities include Billet Casting, Extrusion, Painting, Anodizing, Thermal Improvements (both Pour and De-bridge and Insulating Strut), Fabrication (including CNC machining).

In 2018, Sierra Aluminum Company was acquired by Samuel, Son & Company, a leading metals and industrial products manufacturer, processor and distributor. Established in 1855, Samuel, Son & Company provides various industries and markets with a full range of superior metal products and processing capabilities. Samuel, Son & Company has headquarters in Mississauga, Canada.

Sierra Aluminum Company operates seven extrusion presses (three 7" inch, three 8" inch, and one 9" inch containers) and provides high-quality extrusions ranging from basic mill-finished to the most complex assemblies. SAC's target markets include, but not limited to, the following industries.

- 1- Building and Construction
- 2- Distribution
- 3- Electrical
- 4- Solar
- 5- Transportation

Sierra Aluminum Company offers the following services to its customers:

- 1- Extrusions
- 2- Anodizing
- 3- Painting
- 4- Thermal Improvement
- 5- Assembly
- 6-

#### 4.1.1 External and Internal Issues

Sierra Aluminum Company reviews and analyzes key aspects of its business and its stakeholders to determine the strategic direction of the company. This is accomplished through understanding the external and internal issues that are of concern to SAC and its interested parties. The external and internal issues are as follows.

External Issues	Internal Issues
<ul style="list-style-type: none"> <li>▪ Customers</li> <li>▪ Suppliers</li> <li>▪ Competition</li> <li>▪ Technology</li> <li>▪ Regulatory &amp; Statutory Factors</li> <li>▪ Market Trends</li> </ul>	<ul style="list-style-type: none"> <li>▪ Employees</li> <li>▪ Company Culture</li> <li>▪ Knowledge</li> <li>▪ Innovation</li> <li>▪ Production Capacity</li> <li>▪ Organizational Performance</li> </ul>

The external and internal issues are reviewed and updated as necessary during the Management Review meetings.

#### 4.2 Understanding the needs and expectations of interested parties

The issues that are determined per paragraph 4.1.1 are identified through an analysis of the risks facing SAC and its interested parties. “Interested parties” are those stakeholders who receive SAC products, those who may be impacted by them, or those who may otherwise have a significant interest in the company. These parties are identified as follows.

Interested Parties	Needs	Expectations
Owner(s) / Shareholders	Clear business strategy and wise investment in technology, equipment, and employee development.	Profitability, return on investment, and growth in market value.
Employees	Fair salaries, wages, and benefits. Company stability and job security.	Good work environment; job security; safety; training; advancement; recognition and reward.
Customers	Ability and capacity to manufacture and deliver products as designed. Approval of the purchase order.	Receive quality products and services, on-time, that consistently meet or exceed the specifications.
Suppliers	Well defined purchase orders and specifications. Delivery support.	Receive quality products and services that consistently meet or exceed the specifications.
Regulatory & Statutory Authorities	Understand all regulatory and statutory requirements that are applicable to SAC.	Meet the regulatory & statutory requirements.



The above information is used by the top management to determine the company's strategic direction. This is identified in records of management review meetings, and periodically updated as conditions and situations change.

### **4.3 Determining the Scope of the Quality Management System**

Based on an analysis of the above issues of concern, interests of the stakeholders, and in consideration of its products and services, SAC has determined the scope of the QMS as follows:

*“Extrusion, finishing, and thermal improvement of high-quality profiles for various applications”*

The QMS applies to all processes, activities, and employees within the company's facilities, as stated on page 1 of this manual. Design and Development process is excluded from scope of QMS.

### **4.4 Quality Management System and its Processes**

SAC has adopted a process-based approach for its Quality Management System. By identifying the core processes within the company, and then managing each of these discretely, the potential for discovery of non-conforming products and/or services during the final processes or after delivery is reduced. Instead, non-conformities and risks are identified, in real time, by actions taken within each of the top-level processes.

The following main departments have been identified at SAC:

- Top Management
- Quality Assurance
- Human Resource
- Supply Chain Management (Production Planning)
- Sales & Customer Service
- Purchasing
- Die Shop
- Maintenance
- Production (Foundry, Extrusion, Paint, Anodize, Thermal Improvement, Fabrication)
- Continuous Improvement
- Tooling & Engineering

Each of the above main departments has a set of processes that interact with processes in other departments in order to run the business at SAC in an effective manner.

The set of processes for each main department is described and illustrated in a Turtle Diagram Form, as a stand-alone document. Each Turtle Diagram has the following information:

- Inputs
- Outputs
- Process
- With what the process is performed?
- Who is involved in the process?
- How is the process performed?
- Measurables
- Supporting processes

The interaction of these processes is illustrated in the QMS Process Interaction Diagram (Appendix A) and is documented as stand-alone document D-QAD-002.

#### **4.4.1 Retention of Documented Information**

To the extent necessary, SAC:

- a) maintains documented information to support the operation of its processes
- b) retains documentation to have confidence that the processes are being carried out as planned.

*Applicable document: P-QAD-005, Control of Records Procedure*

#### **4.4.2 Outsourced Processes**

Any process performed outside of SAC is called an “Outsourced Process” and is considered “Supporting Process” which must be controlled. Supporting Processes are described in the applicable procedure.

*Applicable document: P-PUR-002, Supplier Quality Management Procedure*

## **5.0 LEADERSHIP:**

### **5.1 Leadership & Commitment**

#### **5.1.1 General**

Top Management at SAC provides evidence of its leadership and commitment to the development and implementation of the QMS and continually improving its effectiveness by:

- a) taking accountability of the effectiveness of the QMS;
- b) ensuring that the *Quality Policy* and *Quality Objectives* are established for the QMS and are compatible with the strategic direction and the context of the organization;
- c) ensuring the integration of the QMS requirements into the organization’s other business processes, as deemed appropriate (see note below);

- d) promoting awareness of the process approach;
- e) ensuring that the resources needed for the QMS are available;
- f) communicating the importance of effective QMS and conforming to the QMS requirements;
- g) ensuring that the QMS achieves its intended results;
- h) engaging, directing, and supporting the employees who contribute to the effectiveness of the QMS;
- i) promoting continual improvement;
- j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

NOTE: Business processes such as Information Technology, Environmental, Health, and Safety, Accounting, Employee Benefits Management, and Legal Activities are out of the scope of the QMS.

### **5.1.2 Customer Focus**

Top Management at SAC adopts a customer-centric approach which ensures that customers' needs, and expectations are determined, converted into requirements, and are met with the aim of enhancing customer satisfaction.

This is accomplished by ensuring:

- a) customer and applicable statutory and regulatory requirements are determined, understood and consistently met;
- b) the risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are determined and addressed;
- c) the focus on enhancing customer satisfaction is maintained.

## **5.2 Quality Policy**

Top Management has developed a Quality Policy that governs day-to-day operations to ensure quality products and services.

The Quality Policy is released as a stand-alone document and is communicated and implemented throughout the organization. The Quality Policy of SAC is as follows:

### ***Quality Policy***

***At Sierra Aluminum Company, we have a firm commitment to providing superior quality products, on-time, that meet and exceed customer needs and expectations, and satisfy all applicable requirements, through continuous improvement of our Quality Management System.***

*Applicable document: D-MGT-001, Quality Policy Stand-alone Document*

### 5.3 Organizational Roles, Responsibilities, and Authorities

Top Management has assigned responsibilities and authorities for all relevant roles in the company. These are defined in documented procedures and are communicated through the company’s organizational charts.

In addition, the following overall QMS responsibilities and authorities are assigned as follows:

<b>Responsibility</b>	<b>Assigned To</b>
Ensuring that the management system conforms to applicable standards.	Top Management
Ensuring that the processes are delivering their intended outputs.	Applicable process owner(s)
Reporting on the performance of the Quality Management System.	Quality Control Manager
Providing opportunities for improvement for the Quality Management System.	Top Management
Ensuring the promotion of customer focus throughout the organization.	Top Management
Ensuring that the integrity of the management system is maintained when changes are planned and implemented.	Quality Control Manager

## 6.0 PLANNING:

### 6.1 Actions to Address Risks and Opportunities

Sierra Aluminum Company considers risks and opportunities when taking actions within the QMS, as well as when implementing or improving the QMS; likewise, these are considered relative to products and services. Risks and opportunities are identified as part of the “Context of the Organization”, as well as throughout all other activities of the QMS.

Risks and opportunities are managed in accordance with the documents called “Risk Management Matrix” or Failure Mode and Effect Analysis (FMEA). These working documents define how risks are managed to minimize their likelihood and impact, and how opportunities are managed to improve their likelihood and benefit.

*Applicable document: P-MGT-002, Risk Management and Mitigation Procedure*

### 6.2 Quality Objectives and Planning to Achieve Them

As part of the adoption of the process approach, Sierra Aluminum Company utilizes its process objectives, as discussed in Section 4.4 above, as the main quality objectives for the QMS. These include overall product-related quality objectives. Additional product-related quality objectives may be defined in work instructions or customer requirements.

The process objectives have been developed in consideration that they:

- a) be consistent with the quality policy;
- b) be measurable;
- c) consider applicable requirements;
- d) be relevant to conformity of products and services and to enhancement of customer satisfaction;
- e) be monitored;
- f) be communicated;
- g) be updated as appropriate.

Process quality objectives are defined in the minutes of Management Review per Section 9.3 below.

The planning of process quality objectives is defined in section 4.4. above.

### **6.3 Planning of Changes**

Changes to the QMS and its processes are carried out in a planned manner. Sierra Aluminum Company considers the following when making changes:

- a) The purpose of the changes and their potential impact on the business;
- b) how changes will affect the QMS (risks and opportunities);
- c) how changes will affect the availability of resources;
- d) the allocation and/or reallocation of responsibilities and authorities.

## **7.0 SUPPORT:**

### **7.1 Resources**

#### **7.1.1 General**

Sierra Aluminum Company determines and provides the resources needed:

- a) to implement and maintain the QMS and continually improve its effectiveness;
- b) to enhance customer satisfaction by meeting customer requirements.

Resource allocation is done with consideration of the capability and constraints on existing internal resources, as well as needs related to supplier expectations. Resources and resource allocation are assessed during Management Review meetings.

#### **7.1.2 People**

Top management ensures that it provides sufficient staffing for the effective operation of the QMS, as well as for its identified processes.

*Applicable document: P-HRD-003, Resources-People Procedure*

### **7.1.3 Infrastructure**

Sierra Aluminum Company determines, provides, and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes the following, as applicable:

- a) buildings, workspace, and associated facilities;
- b) process equipment, hardware and software;
- c) supporting services such as transport;
- d) information and communication technology.

*Applicable document: P-MAT-001, Maintenance Work Order Procedure*

### **7.1.4 Environment for the Operation of Processes**

Sierra Aluminum Company provides a clean, safe, and well-lit working environment. The Top Management at SAC manages the work environment needed to achieve conformity to product requirements. Specific work environments for manufacturing of products are determined during Project Planning and are documented in subordinate procedures, Work Instructions, or Process Control Plans. Where special work environments have been implemented, these shall also be maintained per 6.3 above.

Human factors are considered to the extent that they directly impact the quality of products.

Note: Social, psychological, and safety aspects of the work environment are managed through activities outside of the scope of the QMS. Only work environment aspects which can directly affect process efficiency or product and service quality are managed through the QMS.

### **7.1.5 Monitoring and Measuring Resources**

Where equipment is used for critical measurement activities, such as inspection and testing, these shall be subject to control and either calibration or verification per Control of Monitoring and Measuring Equipment procedure.

Note: Calibration and measurement traceability is not employed for all measurement devices. Instead, SAC determines which devices will be subject to calibration based on its processes, products and services, or to comply with specifications or requirements. These decisions are also based on the importance of a measurement, and considerations of risk.

### **7.1.6 Organizational Knowledge**

SAC also determines the training necessary for the operation of its processes and to achieve conformity of products and services. This may include knowledge and information obtained from:

- a) internal sources, such as lessons learned from projects and/or customer feedback, feedback from Subject Matter Experts, and/or intellectual property;
- b) external sources such as standards, academia, conferences, and/or information gathered from customers or suppliers.

This knowledge is maintained and made available by the Training Program to the extent necessary.

When addressing employee needs due to changes in process or equipment, SAC considers the current skillsets of its employees and determines how to provide the necessary additional training.

*Applicable document: P-TRD-001, Employee Training Procedure*

## **7.2 Competence**

Staff members performing work affecting product quality are competent based on appropriate education, training, skills, and experience. The documented “Employee Training Procedure” defines these activities in detail.

NOTE: The QMS does not include other aspects of Human Resources management, such as payroll, benefits, insurance, labor relations or disciplinary actions.

*Applicable document: P-TRD-001, Employee Training Procedure*

## **7.3 Awareness**

Training and subsequent communication ensure that staff are aware of:

- a) the Quality Policy;
- b) relevant Quality Objectives;
- c) their contribution to the effectiveness of the QMS, including the benefits of improved performance;
- d) the implications of not conforming to the QMS requirements.
- e) the requirements to follow their documented process, procedures, and Work Instructions.
- f) being empowered to stop a process, if feasible, and notify management or Quality personnel, if a non-conforming condition is detected or suspected.

## **7.4 Communication**

Top Management at SAC ensures that internal communication takes place regarding the effectiveness of the QMS. Internal communication methods may include, but not limited to:

- a) Management Review meetings.
- b) Use of corrective and preventive action processes to report non-conformities or suggestions for improvement.
- c) Use of Quality Alert process.
- d) Meetings (periodic, scheduled and/or unscheduled) to discuss aspects of the QMS.
- e) Use of the results of the Internal Audit process.
- f) All-Hands meetings – Monthly meeting to update employees on the company’s performance.
- g) Employee surveys.

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- h) Policy & safety trainings/updates as well as voluntary meetings.
- i) Other informal conversations, discussions, etc.
- j) SAC “open door” policy which allows any employee access to Top Management for discussions on improving the QMS.

External communication methods may include, but not limited to:

- a) QMS Manual and Quality Policy on company’s website.
- b) E-Mails, text, phone calls, verbal, and meetings.

*Applicable document: P-TRD-004, Communication Procedure*

## **7.5 Documented Information**

The QMS document structure includes both documents and records and has various levels as illustrated in Appendix B.

Note: The ISO 9001:2015 standard uses the term “documented information”; SAC does not use this term, but instead relies on the terms “document” and “record” to avoid confusion. In this context the terms are defined by SAC as provided for in Section 3.0 above. Documents and records undergo different controls as defined herein.

The extent of the QMS documentation has been developed based on the following:

- a) Complexity and interaction of the processes
- b) Risks and Opportunities
- c) Competence of personnel

Documents required for the QMS are controlled in accordance with Document Control procedure. The purpose of document control is to ensure that employees have access to the latest, approved information, and to restrict the use of obsolete information. All documented procedures are established, documented, implemented, and maintained.

A documented procedure for Control of Records has been established to define the controls needed for the identification, storage, retrieval, protection, retention time, and disposition of quality records. This procedure also defines the methods for controlling records that are created by and/or retained by suppliers.

These controls are applicable to those records which provide evidence of conformance to requirements and may be evidence of product or service requirements, contractual requirements, procedural requirements, or statutory/regulatory compliance (Labor laws, Safety, Health, and Environmental, etc.). In addition, quality records include any records which provide evidence of the effective operation of the QMS.

*Applicable document: P-QAD-006, Document Control Procedure*



## **8.0 OPERATIONS:**

### **8.1 Operational Planning and Control**

SAC plans and develops the processes needed for realization of its products. Planning of product realization is consistent with the requirements of the other processes of the QMS. Such planning considers the information related to the context of the organization (see Section 4.0), current resources and capabilities, as well as product requirements.

Such planning may be accomplished through the following:

- a) determining the requirements for the products;
- b) establishing the criteria for the processes and the acceptance of products;
- c) determining the resources needed to achieve conformity to the product requirements;
- d) implementing control of the processes in accordance with the criteria.
- e) determining, maintaining, and retaining documented information to the extent necessary to have confidence that the processes have been carried out as planned and to demonstrate the conformity of products to their requirements.

Changes to operational processes are made in accordance with the Document Control procedure. Outsourced processes and how SAC controls them are defined in Section 4.4.2 of this Manual. The general manufacturing process flowchart is illustrated in Appendix C.

### **8.2 Requirements for Products and Services**

#### **8.2.1 Customer Communication**

SAC communicates with its customers in relation to:

- a) providing information relating to products;
- b) handling inquiries, contracts or Purchase Orders, including changes;
- c) obtaining customer feedback relating to products and services, including customer complaints;
- d) handling or controlling customer property (can include materials, components, tools and equipment, premises, intellectual property and personal data);
- e) establishing specific requirements for contingency actions, when relevant.

All customer-furnished materials are inspected for obvious visual damage or dimensional defects prior to processing. If defects or damage are detected, materials will not be processed until inspection result is discussed with the customer and a disposition is provided by the customer in writing.

*Applicable document: P-CSD-002, Customer Communication Procedure*

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### **8.2.2 Determining the Requirements Related to Products and Services**

During the intake of new business, SAC determines:

- a) requirements specified by the customer, including the requirements for delivery and applicable post-delivery activities;
- b) requirements not stated by the customer but necessary for specified or intended use, where known;
- c) statutory and regulatory requirements related to products;
- d) any additional requirements determined by SAC.

These activities are defined in greater detail in the Customer Order Review procedure.

*Applicable document: P-CSD-001, Customer Order Review Procedure*

### **8.2.3 Review of Requirements Related to Products and Services**

Once requirements are determined, SAC reviews the requirements prior to its commitment to supply the product. This review ensures that SAC has the capability and capacity to:

- a) meet all requirements specified by the customer, including requirements for delivery and post-delivery activities;
- b) meet any requirements not stated by the customer, but which SAC knows as being necessary;
- c) meet all related statutory and regulatory requirements;
- d) meet any contract or order requirements differing from those previously expressed (i.e., from a previous SAC quote).

*Applicable document: P-CSD-001, Customer Order Review Procedure*

### **8.2.4 Changes to Requirements for Products and Services**

SA updates all relevant requirements and documents, when the requirements are changed, and ensures that all appropriate personnel are notified, per Document Control procedure. However, drawing changes and/or die changes are not allowed in mid-production.

### **8.3 Design and Development of Products and Services**

Exclusion: SAC does not design and develop any product; therefore, Design and Development process is excluded from scope of QMS.

### **8.4 Control of Externally Provided Processes, Products and Services (ASL?)**

SAC ensures that purchased products conform to specified purchase requirements. The type and extent of control applied to the supplier and the purchased products or services are dependent on the effect on subsequent product realization or the final product.

SAC evaluates and selects suppliers based on their ability to supply products and services in accordance with the organization's requirements. Criteria for selection, evaluation and re-evaluation of the suppliers are established.

Purchases are made via the release of formal Purchase Orders and/or contracts which clearly describe what is being purchased, the lead time, quantity, and cost. Received products or services are then verified against requirements by the Receiving personnel to ensure satisfaction of requirements. Suppliers who do not provide conforming products or services may be requested to conduct and submit a formal corrective action.

These activities are further defined in the Purchasing Procedure and Receiving procedure.

*Applicable documents: P-PUR-001, Purchasing Procedure*

*I-FDY-001, Receiving Inspection of Ingots and T-Bars Work Instructions*

## **8.5 Production and Service Provision**

### **8.5.1 Control of Production and Service Provision**

To control its provision of products, SAC may consider, the following, as applicable:

- a) the availability of documents or records that define the characteristics of the products as well as the results to be achieved;
- b) the availability and use of suitable monitoring and measuring resources;
- c) the implementation of monitoring and measurement activities;
- d) the use of suitable infrastructure and environment;
- e) the appointment of competent persons, including any required qualifications;
- f) the validation and revalidation of special processes if applicable (see below);
- g) the implementation of actions to prevent human error;
- h) the implementation of release, delivery, and post-delivery activities.

### **8.5.2 Identification and Traceability**

Where appropriate, SAC identifies its products or other critical process outputs by suitable means. Such identification includes the status of the products with respect to monitoring and measurement requirements. Unless otherwise indicated as non-conforming, pending inspection or disposition, or some other similar identifier, all products shall be considered conforming and suitable for use.

If unique traceability is required by contract, regulatory, or another established requirement, SAC controls and records the unique identification of the products. The documented Quality Control Process defines these methods.

*Applicable document: P-QAD-013, Product Identification and Traceability Procedure*

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### **8.5.3 Property Belonging to Customers or External Providers**

SAC exercises care with customer or supplier property while it is under the organization's control or being used by the organization. Upon receipt, such property is identified, verified, protected and safeguarded. If any such property is lost, damaged or otherwise found to be unsuitable for use, this is reported to the customer or supplier and records are maintained.

For customer intellectual property, including customer furnished data used for design, production and/or inspection, this is identified by customer and maintained and preserved to prevent accidental loss, damage or inappropriate use.

This activity is defined in greater detail in the Customer-Owned Product procedure.

*Applicable document: P-CSD-003, Customer-owned Property Procedure*

### **8.5.4 Preservation**

SAC preserves conformity of products or other process outputs during internal processing and delivery. This preservation includes identification, handling, packaging, storage, and protection. Preservation also applies to the constituent parts of a product.

The processes for preservation of product are defined in the applicable procedures. These include processes for identification (part number); handling (to prevent damage); packaging (best commercial practice or customer specified); storage (in designated storage areas); and protection (including use of appropriate packaging and storage practices).

*Applicable document: P-QAD-012, Product Preservation Procedure,*

### **8.5.5 Post-Delivery Activities**

As applicable, SAC conducts the following activities which are considered "post-delivery activities":

- engagement with customers to determine if the products or services were to their satisfaction;
- contractual arrangements such as warranties
- Technical support

Post-delivery activities are conducted in compliance with the QMS as defined in this manual. In determining the extent of the post-delivery activities that are required, SAC considers:

- a) statutory and regulatory requirements;
- b) the potential undesired consequences associated with its products;
- c) the nature, use and intended lifetime of its of products;
- d) customer requirements;
- e) customer feedback.

### **8.5.6 Control of Changes**

SAC reviews and controls both planned and unplanned changes to processes to the extent necessary to ensure continuing conformity with all the requirements. Changes in mid-production are not allowed.

Change management process is defined in the Document Control procedure.

*Applicable document: P-QAD-006, Document Control Procedure*

### **8.6 Release of Products and Services**

Acceptance criteria for products are defined in appropriate subordinate documentation. Reviews, inspections, and tests are conducted at appropriate stages to verify that the product and/or service requirements have been met. This is done before products are released and/or services are delivered.

Each process utilizes different methods for measuring and releasing products. These methods are defined in the Quality Control Procedure.

*Applicable document: P-QAD-011, Quality Control Procedure*

### **8.7 Control of Non-Conforming Outputs**

SAC ensures that products or other process outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

The process for control of such non-conformances is defined in the Control of Non-Conforming Product procedure.

*Applicable document: P-QAD-004, Control of Non-Conforming Product Procedure*

## **9.0 PERFORMANCE EVALUATION:**

### **9.1 Monitoring, Measurement, Analysis and Evaluation**

#### **9.1.1 General**

SAC has determined which aspects of its QMS must be monitored and measured, as well as the methods to utilize and records to maintain, within this Quality Manual and subordinate documentation.

Monitoring and measurement of the processes, as defined in 4.4 above, ensure that the Top Management evaluates the performance and effectiveness of the QMS itself.

#### **9.1.2 Customer Satisfaction**

As one of the measurements of the performance of the QMS, the organization monitors information related to customer perception and whether the organization has fulfilled customer's requirements or not.

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The primary methods for obtaining this information are customer surveys, obtained verbally or in writing (Survey Forms), and quality and delivery performance. This feedback information is summarized by the V.P. of Sales & Marketing; is reviewed with Top Management for any actions required; and is consolidated, analyzed, and reported at Management Review and All-Hands meetings.

Other customer feedback such as customer data on delivered product quality, lost business analysis, compliments, warranty claims, and branch reports are documented by management and reviewed at Management Review meetings. Actions are taken, and customer feedback is given as appropriate.

The corrective and preventive action system shall be used to develop and implement plans for customer satisfaction improvement that address deficiencies identified by these evaluations and assess the effectiveness of the results.

### **9.1.3 Analysis and Evaluation**

SAC analyzes the data and information obtained from Monitoring and Measurement process to evaluate:

- a) conformity of products;
- b) the degree of customer satisfaction;
- c) the performance and effectiveness of the QMS;
- d) if planning has been implemented effectively;
- e) the effectiveness of actions taken to address risks and opportunities;
- f) the performance of external providers;
- g) the need for improvements to the QMS.

## **9.2 Internal Audit**

SAC conducts internal audits at planned intervals to determine whether the QMS conforms to contractual and regulatory requirements and requirements of ISO 9001:2015 International Standard. Internal audits also seek to ensure that the QMS has been effectively implemented and is maintained. These activities are defined in the Internal Audit Procedure.

*Applicable document: P-QAD-001, Internal Audit Procedure*

## **9.3 Management Review**

Top Management reviews the QMS, at planned intervals, a minimum of once per year, to ensure its continuing suitability, adequacy and effectiveness. The review includes assessing opportunities for improvement, and the need for changes to the QMS, including the Quality Policy and Quality Objectives.

Management review frequency, inputs (Agenda), outputs, required members, actions taken, and other requirements are defined in the documented Management Review procedure.

Records from Management Review meetings are maintained.

*Applicable document: P-MGT-001, Management Review Procedure*

## **10.0 IMPROVEMENT:**

### **10.1 General**

SAC uses the management system to improve its processes, products and services. Such improvements aim to address the needs and expectations of customers as well as other interested parties, to the extent possible. Improvements are driven by an analysis of data and are used to evaluate:

- a) conformity of products and services;
- b) the degree of customer satisfaction;
- c) the performance and effectiveness of the QMS;
- d) the effectiveness of planning;
- e) the effectiveness of actions taken to address risks and opportunities;
- f) the performance of external providers;
- g) other improvements to the QMS.

*Applicable document: P-CID-001, Continuous Improvement Procedure*

### **10.2 Non-Conformity and Corrective Action**

SAC takes corrective action to eliminate the cause of nonconformity to prevent recurrence. Likewise, the company takes preventive action to eliminate the causes of potential non-conformities to prevent their occurrence. These activities are done using the formal corrective action per Corrective Action procedure.

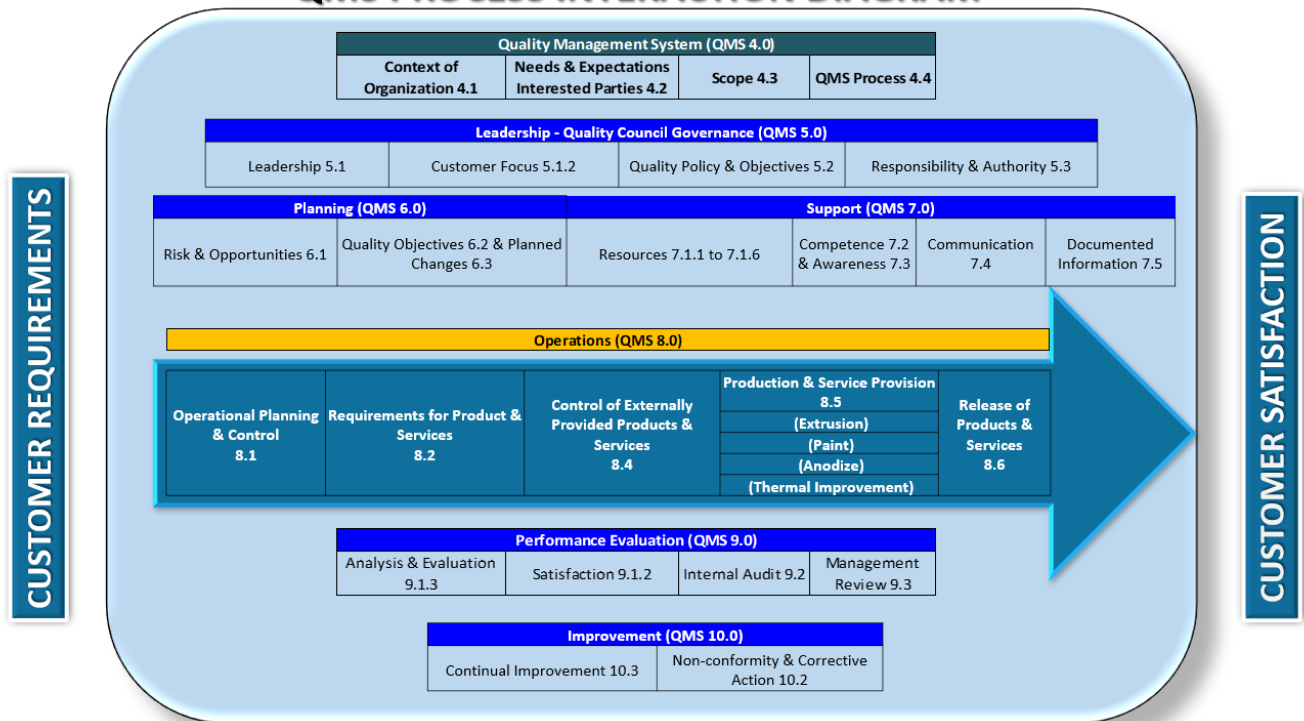
*Applicable document: P-QAD-002, Corrective and Preventive Action Procedure*

### **10.3 Continuous Improvement**

Through the process effectiveness reviews, done as part of Management Review, SAC works to continuously improve the suitability, adequacy, and effectiveness of the QMS. This includes seeking opportunities for improvement.

*Applicable document: P-CID-001, Continuous Improvement Procedure*

### QMS PROCESS INTERACTION DIAGRAM



D-QAD-002, Rev. A, 10-2-2023

### Appendix A: QMS Process Interaction Diagram



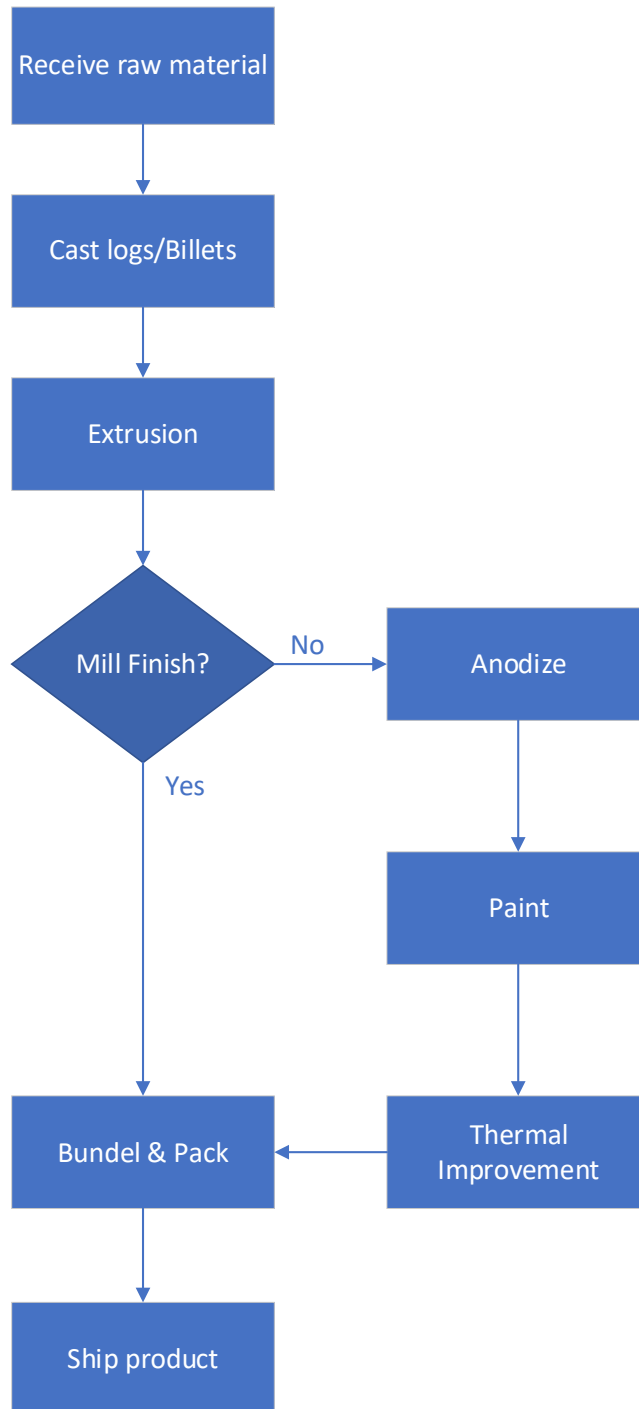
## QMS Documents Structure



D-QAD-019, Rev. NC, QMS Documents Structure, 10-2-2023

### Appendix B: QMS Documents Structure

General Manufacturing Process Flowchart



Appendix C: General Manufacturing Process Flowchart

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**REVISION LOG**

<b>Rev</b>	<b>Description of Changes</b>	<b>Issue Date</b>	<b>Prepared By</b>	<b>Approved By</b>	<b>DRA #</b>
NC	Initial Release	2/10/2020	Mike Termechi	Victor Toscano	069
A	1- Changed “Riverside” to “Jurupa Valley” on page 1 to correct corporate address. 2- Removed 8.3.1 and 8.3.2 from Table of Contents on page 3. 3- Added 7.3 (e) and (f). 4- Added a statement in Paragraph 8.2.1 to address customer-furnished materials.	2/28/2020	Rafael Varga	Victor Toscano	103
B	1- Removed Architectural & Fabrication facility address on page 1. 2- Revised Section 1.0 to add statements regarding “Plan – Do – Check – Act” and clarify the intended use of the QMS manual for internal employees and customers. 3- Revised Section 3.0 to add statement for use of ISO/TS 9002 Technical Specification, and definition for Business Management System (BMS). 4- Revised Para. 4.1 and 4.3 to remove “Fabrication”. 5- Added “Tooling & Engineering” and “Training” and “Appendix A” to Section 4.4. 6- Revised Para. 7.5 to add reference to Appendix B. 7- Revised Para. 9.1.3 to remove the statement regarding statistical techniques. 8- Revised Para. 9.3 to add minimum frequency for Management Review. 9- Changed “Director of Quality Assurance” to “Quality Control Manager” throughout the document. 10- Changed “Director of Sales & Marketing” to “V.P. of Sales & Marketing” in Paragraph 9.1.2. 11- Added Appendix B. 12- Revised Para. 8.2.2 to change referenced procedure. 13- Made minor grammatical corrections.	4/28/2023	Mike Termechi	Victor Toscano	476

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Rev	Description of Changes	Issue Date	Prepared By	Approved By	DRA #
C	<p>1- Revised Para. 4.3 to update Scope of the Quality Management System.</p> <p>2- Revised Para. 5.2 to update the Quality Policy.</p> <p>3- Revised Appendix A to update the Process Interaction Diagram.</p> <p>4- Revised Para. 8.2.4 to add a statement that drawing changes and/or die changes are not allowed in mid-production.</p> <p>5- Removed Para. 5.3.1.</p> <p>6- Revised Para. 5.3 to add "...defined in documented procedures,,,"</p> <p>7- Revised Para. 4.4 to define Appendix A as a stand-alone document D-QAD-002.</p> <p>8- Revised Para. 4.3 to exclude the Design and Development process from the scope of QMS.</p> <p>9- Revised Para. 7.4 to add external communication methods.</p> <p>10- Revised Para. 4.4 to remove "Training" as a department.</p> <p>11- Revised Para. 4.4.1, 4.4.2, 5.2, 6.1, 7.1.2, 7.1.3, 7.1.6, 7.2, 7.4, 7.5, 8.2.1, 8.2.2, 8.2.3, 8.4, 8.5.2, 8.5.3, 8.5.4, 8.5.6, 8.6, 8.7, 9.2, 9.3, 10.1, 10.2, and 10.3 to add applicable documents.</p> <p>12- Revised Para. 8.1 to change "Section 4.4.3" to "Section 4.4.2".</p> <p>13- Revised Para. 7.1.4 to change "job documentation" to "Process Control Plans".</p> <p>14- Revised Para. 8.6 to change "P-QCD-001 Quality Control Process" to "Quality Control Procedure". And state that changes in mid-production are not allowed.</p> <p>15- Revised Para. 7.5 to include examples of statutory and regulatory compliance.</p> <p>16- Revised Para. 3.0 to add definitions for statutory requirement and regulatory requirement.</p> <p>17- Revised Appendix B to add Process Control Plans to Level 4 documents.</p> <p>18- Added Appendix C; General Manufacturing Process Flowchart.</p> <p>19- Made minor grammatical corrections.</p>	10/9/2023	Mike Termechi	Victor Toscano	566