# Superior Metal Technologies Quality Manual

## Table of Contents

Revision “E” July 12, 2005

<table>
<thead>
<tr>
<th>Section Number</th>
<th>Section Title</th>
<th>Revision Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>About Our Company</td>
<td>A</td>
</tr>
<tr>
<td>B</td>
<td>Superior Metal Technologies Quality Policy</td>
<td>B</td>
</tr>
<tr>
<td>C</td>
<td>Superior Metal Technologies Organizational Chart</td>
<td>C</td>
</tr>
<tr>
<td>D</td>
<td>Scope and Exclusions</td>
<td>C</td>
</tr>
<tr>
<td>E</td>
<td>Superior Metal Technologies Interaction of Processes</td>
<td>C</td>
</tr>
<tr>
<td>4.0</td>
<td>Quality Management System</td>
<td>A</td>
</tr>
<tr>
<td>4.1</td>
<td>General Requirements</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Documentation Requirements</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>Management Responsibility</td>
<td>B</td>
</tr>
<tr>
<td>5.1</td>
<td>Management Commitment</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Customer Focus</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Quality Policy</td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Planning</td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>Responsibility, Authority and Communication</td>
<td></td>
</tr>
<tr>
<td>5.6</td>
<td>Management Review</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>Resource Management</td>
<td>A</td>
</tr>
<tr>
<td>6.1</td>
<td>Provision of Resources</td>
<td></td>
</tr>
<tr>
<td>6.2</td>
<td>Human Resources</td>
<td></td>
</tr>
<tr>
<td>6.3</td>
<td>Infrastructure</td>
<td></td>
</tr>
</tbody>
</table>
6.4 Work Environment

7.0 Product Realization
   7.1 Planning of Product Realization
   7.2 Customer Related Processes
   7.3 Design and Development
   7.4 Purchasing
   7.5 Production and Service Provision
   7.6 Control of Measuring & Monitoring Devices

8.0 Measurement, Analysis and Improvement
   8.1 General
   8.2 Monitoring and Measurement
   8.3 Control of Nonconformity
   8.4 Analysis of Data
   8.5 Improvement

Superior Metal Technologies Quality Manual
Revision Descriptions

Quality Manual Approval
Revision “E”

Vice President
July 26, 2005
About Our Company

Our business, located in Indianapolis, Indiana, has been in operation since 1936. We provide anodizing and painting services to manufacturers of architectural as well as light metal products. The range of products anodized includes products as large as 33-½ feet long. Our anodizing and painting capabilities include various anodizing finishes and paint types.
At Superior Metal Technologies, our focus and commitment is to consistently meet or exceed our customer’s expectations. The quality objectives listed below are the primary means by which we will accomplish this commitment and measure our success.

- Quality Products
  Measured By: Labor Percentage

- On-time Delivery
  Measured By: Re-run Percentage of Total Production

- Customer Satisfaction
  Measured By: Customer Complaints

Quality Policy Approval
Revision “B”

Vice President
July 12, 2005
Superior Metal Technologies
Organizational Chart

July 12, 2005
REVISION “C”

Owner

President/Vice President of Sales
  Paint Supervisor
    Foreman

Vice President/Anodizing General Manager
  Quality Manager
  Anodizing Supervisor
    Foreman

SECTION C
Scope and Exclusions

Scope
The scope of our quality management system includes anodizing, painting, thermal fill and de-bridging. Our quality management system meets all requirements of ISO 9001:2000, including design of our processes. Processes included in the scope of our quality management system include our product/service development process, resource procurement process, product realization process and our management process.

Exclusions
Design at Superior Metal Technologies is limited to design of racks. Our customers design all products processed at our facility.
Superior Metal Technologies Interaction of Processes

(1) Product/Service Development
- Sales Process
- Quoting Process
- Contract Review Process
- Process Development Process
- Inspection Instructions Developed
- Work Instructions Developed
- Packaging Requirements Defined
- Measured By: Labor Percentage

(2) Resource Procurement
- Purchasing
- Maintenance
- Human Resources
- Training
- Measured By: 1. Labor Percentage
- 2. Adequate Staffing (Informally)

(3) Product Realization
- Scheduling Process
- Anodizing Process
- Painting Process
- Thermo/Debridge Process
- Packaging Process
- In-Process/Final Inspection
- Shipping and Receiving
- Measured By: Re-run Percentage of Total Production

(4) Management Process
- Management Review Process
- Continuous Improvement Process
- Internal Audit Process
- Measured By: 1. Labor Percentage
- 2. Re-run Percentage of Total Production
- 3. Customer Complaints

CUSTOMER REQUIREMENTS

CUSTOMER SATISFACTION
SCOPE
This quality manual describes our Quality Management System in a general sense. Procedures and work instructions exist to provide a more detailed description of our Quality Management System. The scope of our quality management system includes the activities associated with the initial contact with our customer, through to shipment of our products, including customer feedback and reaction to such information.

4.1 GENERAL REQUIREMENTS

The Management Representative is responsible for ensuring that our Quality Management System is properly documented, implemented, maintained, managed, and continually improved upon as required by the ISO 9001:2000 Standard.

Our Quality Management System:

A. Identifies the processes needed for the Quality Management System, and their application;

B. Determines the criteria and methods needed to ensure that the operation and control of our processes are effective;

C. Determines the sequence and interaction of these processes;

D. Ensures the availability of resources and information needed to support the operation and monitoring of these processes;

E. Monitors, measures, and analyzes these processes and,

F. Assures that action is taken, as needed to achieve planned results and continual improvement.

It is through this Quality Manual, our procedures, and work instructions that our Quality Management System satisfies the primary documentation requirements of the ISO 9001:2000 standard, as well as those of our customers. The interaction and sequence of our processes consist of the following, and are addressed in section “E” of this manual:

1. Product/Service Development
   • Sales Process
   • Quoting Process
   • Contract Review Process
   • Process Development Process
   • Inspection Instructions Developed
   • Work Instructions Developed
   • Packaging Requirements Defined
2. Resource Procurement
   • Purchasing
   • Human Resources
   • Training

3. Product Realization
   • Scheduling Process
   • Anodizing Process
   • Painting Process
   • Thermal Fill and Debridge Process
   • Packaging Process
   • In-Process/Final Inspection
   • Shipping and Receiving

4. Management Process
   • Management Review Process
   • Continuous Improvement Process
   • Internal Audit Process

4.2 DOCUMENTATION REQUIREMENTS

4.2.1 General

The Quality Management System documentation at Superior Metal Technologies is primarily hard copy; however some documentation is maintained electronically. Such documentation includes the following:

A. Quality Policy with clear company objectives;

B. Quality Manual;

C. Procedures which satisfy the requirements of ISO 9001: 2000;

D. Other documents both internal and external, which ensure the effectiveness of our Quality Management System;

E. Development and maintenance of records as required by ISO 9001: 2000

4.2.2 Quality Manual

Previous introductory pages of this Quality Manual provide the scope of our Quality Management System, including the exclusions and justifications for such exclusions.
Where applicable, each section of this Quality Manual shall reference the associated procedure(s), which are found in the Superior Metal Technologies Procedures Manual.

### 4.2.3 Control of Documents

Procedure 4.2.3 in the Superior Metal Technologies Procedures Manual assures that systems are in place to assure control of Quality Management System related documentation, including our Quality Manual, Procedures Manual, Work Instructions, Forms and documents of external origin.

All such documents are reviewed, and approved prior to entry into our document control system and distribution.

The document control system in place at our company includes an “Approved Document List”. This system assures that only current and controlled documents are in use, and that such documents remain clear and legible. (Obsolete documents are removed from all possible points of use). Additionally, this system assures that such documents are readily available at each required point of use.

### 4.2.4 Control of Records

All Quality Management System records are controlled, including applicable customer and/or government issued documents. All such records are identified, stored, retrieved, retained, and disposed of per Superior Metal Technologies Procedure 4.2.4. This procedure defines the controls needed to assure that:

A. Documents are approved for adequacy prior to issue/use;

B. Documents are reviewed, updated and re-approved as necessary;

C. Changes and current revision levels of documents are identified;

D. Relevant versions of applicable documents are available at all points of use by our associates;

E. Documents of external origin are identified and their distribution is controlled;

F. Unintended use of obsolete documents is prevented, and,

G. Obsolete documents are properly identified if they are retained for any reason.
5.1 MANAGEMENT COMMITMENT

Management commitment at our company is demonstrated through the following:

A. Company wide focus on improvement and effectiveness

B. Executive Management communication with our employees

C. Establishment of a company policy with meaningful company objectives

D. Management Review Meetings which assure that the improvement and effectiveness of our Quality Management System is promoted and monitored.

E. Provision of adequate resources, which support our Quality Management System.

5.2 CUSTOMER FOCUS

Executive Management ensures that all employees are focused on our customer’s requirements. Each Management Review meeting includes an analysis of our success in meeting our customer’s requirements.

5.3 Quality Policy

The Vice President assures that our Quality Policy is properly defined, understood and implemented. New employees are introduced to the intent of our Quality Policy at the time of hire. Existing as well as new employees receive training regarding our Quality Policy. Additionally the Quality Policy is posted in key locations of our facility. During each Management Review meeting, the Quality Policy is reviewed to assure that the Quality Policy continues to:

A. Be appropriate to our company objectives;

B. Include top management commitment to comply with our Quality Management System;

C. Include our commitment to continually improve the effectiveness of our Quality Management System;

D. Provide a framework for establishing and reviewing our quality objectives;

E. Be communicated and understood throughout our company; and,

F. Continues to be suitable for our overall needs.
5.4 PLANNING

5.4.1 Quality Objectives

The quality objectives of our company are measurable and in support of our Quality Policy. Because all objectives are measurable, progress, or the lack of progress in meeting our Quality Policy objectives can be easily determined. It is in this way that continuous improvement is fostered at our company. Posting of our quality objectives is a primary means of communicating to our employees.

5.4.2 Quality Planning

Quality Planning ensures that our focus is on meeting the requirements of our customers, as well as our Quality Management System. The integrity of our Quality Management System is maintained when changes to it are planned and implemented. Such changes are reviewed during our Management Review Meetings.

5.5 RESPONSIBILITY AUTHORITY AND COMMUNICATION

5.5.1 Responsibility and Authority

Procedures identify those who have responsibility and authority to manage, perform and verify work that affects quality. Additionally, the company’s organizational chart found in section “C” of this manual provides an overview of the responsibility and authority at our company.

5.5.2 Management Representative

The Quality Manager holds the position of Management Representative. This position includes the responsibility to ensure that the requirements of ISO 9001: 2000 are met and maintained.

5.5.3 Internal Communication

The Management Representative ensures that communication regarding our Quality Management System throughout our company is maintained. This is accomplished through plant meetings, emails and posting of Quality Objectives.
5.6 MANAGEMENT REVIEW

5.6.1 General

Management Review Meetings are held, at a minimum, once per registration year. The Vice President chairs each Management Review Meeting. The purpose of each meeting is to assure that our Quality Management System is current and effective. For details, please see Superior Metal Technologies Procedure 5.6.1.

In part, the effectiveness of our Quality Management System is revealed through our progress in meeting our company objectives. Noted below are examples of such company objectives:

1. Quality Products
2. On-time Delivery
3. Customer Satisfaction

5.6.2 Review Input

Management Review Inputs consist of the following:

A. Internal Audit Results
B. Customer Satisfaction, which may consist of customer feedback when available
C. Process and product performance
D. Follow-up actions from previous management reviews
E. Corrective and Preventive Action Status
F. Planned Changes that may effect the Quality Management System
G. Continuous Improvement Suggestions.
H. Suitability of quality policy
5.6.3 Review Output

Management Review Outputs consist of documented decisions, actions and possible assignments for each input being reviewed including:

A. Improvement of the effectiveness of the Quality Management System
B. Improvement of products ability to meet our customer’s requirements, and
C. Analysis of resources needed.

5.6.4 Records

Management review records are maintained per Management Review Procedure 5.6.1
6.1 PROVISION OF RESOURCES

The Vice President is the focal contact regarding the adequate provision of resources. All activities related to our Quality Management System are included in our objective to provide adequate resources. Resources include, but are not limited to raw materials, manpower, equipment, training needs, etc.

6.2 HUMAN RESOURCES

6.2.1 General

Education, training, and experience requirements are defined for each primary job function. Examples of such primary job functions may include Internal Auditor, Foreman, Racker, Group Leader, Lab Technician, as well as others. The skills/qualifications of each employee are documented, assuring that employees performing each process are qualified on the basis of education, training, or experience.

6.2.2 Competence, Awareness and Training

Training, including both in-house as well as outside training is evaluated periodically for effectiveness on a sampling basis. Training regarding our Quality Policy assures that all employees are aware of the importance of their activities in meeting Quality Objectives.

6.3 INFRASTRUCTURE

The adequacy of our infrastructure is evaluated at each Management Review Meeting. Our focus is on the following:

A. Facility Workplace;
B. Utilities;
C. Key Processes Equipment;
D. Work Environment;
E. Computer Hardware and Software, as well as;
F. Supporting Services

Maintenance of our key process equipment is performed on a planned basis.
6.4 WORK ENVIRONMENT

As noted above, the work environment is reviewed during each Management Review Meeting. In part, adequate work environment may be measured by employee accidents which require clinic visits, employee turnover, as well as quality issues which are related to our work environment.
7.1 PLANNING OF PRODUCT REALIZATION

Planning of Product Realization begins with our initial customer contact. The focus of our efforts is to assure that:

- Anodizing, Painting and Packaging requirements are determined

Processes, including our inspection processes are properly planned to meet our customer’s quality requirements;

Processes are properly controlled, with proper documentation. The Planning Team, which may consist of the Vice President, General Managers, and the Quality Manager, has the responsibility and authority for initial planning activities such as:

A. Quality Objectives;
B. Product Requirements;
C. Documentation;
D. Resources;
E. Verification and Validation activities;
F. Monitoring Process Parameters;
G. Inspection and Testing Requirements;
H. Acceptance Criteria;
I. Documentation/Record Maintenance, and
J. Packaging Requirements.

7.2 CUSTOMER RELATED PROCESSES

7.2.1 Determination of Requirements Related to the Product

The Planning Team is responsible to assure that the customer’s requirements, including requirements not stated, but necessary for specified use are met. Additional, requirements such as internal, regulatory or statutory are also determined and communicated by the Vice President. Such product requirements are typically determined as conveyed to us through customer provided prints, specifications, purchase orders.
7.2.2 Review of Requirements Related to the Product

Each contract, (Purchase Order) (Hard copy as well as verbal) is reviewed prior to acceptance and data entry by the VP of Sales or his designee. This review assures that all requirements are clearly understood and properly documented.

The person responsible for conducting the original contract review is responsible for processing associated amendments when required. This person communicates changes resulting from amendments to appropriate personnel.

In situations where customer requirements are not clear, the customer is contacted for clarification. This assures that all requirements are clearly understood. Records of contract reviews are maintained.

7.2.3 Customer Communication

It is the Customer Service Manager and, or his or her designees that determines and implements effective communication with our customers relative to product information, inquires, order handling, amendments, and customer feedback, which may include customer complaints.

7.3 PRODUCT DESIGN AND DEVELOPMENT

Design is limited to design of anodizing racks. Please see procedure 7.3.

7.3.1 Anodizing and painting processes are pre-defined, depending on our customer’s specific requirements.

7.4 PURCHASING

7.4.1 Purchasing Process

Products purchased at Superior Metals consist primarily of paint and chemicals. The appropriate department supervisor assures that purchased product and services that directly affect product and, or service quality conforms to purchasing requirements.

Assessments of potential suppliers that may affect product quality as well as the supplier’s ability to meet our requirements may be performed when deemed appropriate.

The performance of existing suppliers that may affect product quality is monitored. The Quality Manager determines the supplier evaluation criteria.
7.4.2 Purchasing Information

Purchasing documents issued to our suppliers are reviewed to assure clear and adequate descriptions of the products or services being ordered. Such information included on our Purchase Orders may include:

A. Requirements for approval of products;

B. Procedures;

C. Processes and equipment;

D. Requirements for qualification of personnel, and

E. Quality Management System requirements.

7.4.3 Verification of Purchased Product and/or Services

Purchased products consist primarily of chemicals and paint. Verification takes place upon receipt of these products to assure that purchased products do in fact meet our purchase order requirements.

7.5 PRODUCTION AND SERVICE PROVISION

7.5.1 Control of Production and Service Provision

Responsibility and Authority: Vice President of Sales

Production and service provision are planned and carried out under controlled conditions which may include the following:

A. The availability of information that describes the characteristics of the product;

B. The availability of inspection instructions as necessary;

C. The use of suitable equipment;

D. The availability and use of proper monitoring and measuring devices;

E. Customer packaging requirements, and

F. The implementation of release, delivery and post-delivery activities.
7.5.2 Validation of Processes for Production and Service Provision

**Responsibility and Authority: Vice President of Sales and General Manager of Anodizing**

Process parameters have been established for our painting and anodizing processes. Operators making adjustments to the anodizing or painting processes have been qualified.

7.5.3 Identification and Traceability

**Responsibility and Authority: Department Supervisors**

Traceability of each production run is maintained. Our traceability assures that products shipped to our customers can be traced back to the work order/production run associated with the product in question.

7.5.4 Customer Property

**Responsibility and Authority: Quality Manager**

Customer property is properly identified. Customer property that is lost, damaged or otherwise unsuitable for use shall be reported to the associated customer. Records of Customer Owned Property are maintained by the Quality Manager.

7.5.5 Preservation of Product

**Responsibility and Authority: Department Foreman**

Preservation of all products is assured during internal processing and delivery to our customers. Such preservation may include identification, handling, packaging and storage.

7.6 CONTROL OF MEASURING AND MONITORING DEVICES

The **Quality Manager** shall oversee the determination of the monitoring, measurement (Inspection) activities to be undertaken, as well as the monitoring and measuring **devices** needed to provide evidence of conformity of product to established requirements.

Work orders and load sheets are established for each run to ensure that monitoring and measurement can be carried out in a manner that is consistent with predetermined requirements.
Inspection and Measurement equipment (Gages) shall be:

A. Calibrated or verified at specified intervals against measurement standards traceable to proper standards. In situations where no such standards exist, the basis for calibration is documented;

B. Adjusted or re-adjusted as necessary

C. Identified to assure that the calibration status clearly apparent;

D. Safeguarded from adjustments that would invalidate the measurement results, and

E. Protected from damage and deterioration during handling, maintenance and storage.

When inspection equipment is found not to conform to calibration requirements, the products that were previously tested with such equipment shall be verified as to actual status. Based on the results of such verification activities, appropriate action is taken.

Records of our calibration and, or verification activities are maintained.
8.1 GENERAL

Measurement, analysis and improvement of our processes is a primary focus of our Quality Management System, and is overseen by our Vice President. Review of our efforts to measure, analyze and improve our processes take place during Management Review Meetings. Processes are structured so as to:

A. Clearly define our customer input requirements;
B. Demonstrate conformity of our products;
C. Ensure conformity of the Quality Management System;
D. Continually improve the effectiveness of the Quality Management System and
E. Assure that the process outputs meet the customer input requirements.

8.2 MONITORING AND MEASUREMENT

8.2.1 Customer Satisfaction

Responsibility and Authority: Quality Manager

Customer satisfaction is measured to determine how our customers view our performance in meeting their requirements. Actual methods for determining this may include our performance, as indicated by the number of customer quality issues.

8.2.2 Internal Audits

Internal audits are conducted, at a minimum, twice per year, assuring that all elements of ISO 9001: 2000 are audited twice per year. Additional audits are scheduled based on status and importance. Internal auditors are chosen to assure objectivity and impartiality of the audit process.

Corrective action is assigned to the manager who has responsibility for the area where the nonconformance was found. This person assures that timely corrective action is taken to eliminate the associated nonconformance and their causes. Effectiveness of such corrective action is verified. For further details regarding the responsibilities and requirements for planning and conducting audits, and for maintenance of internal audit records, please see Procedure 8.2.2.
8.2.3 Monitoring and Measurement of Processes

Our processes are monitored to assure that our Quality Management System is effective in achieving planned results. (Primarily through our Quality Policy / Company Objectives) When planned results are not achieved, corrective action is taken as appropriate to ensure conformity of our products, and or services. Examples of processes may include Production Processes, which are monitored in-process, as well as during final audit and our Purchasing Process of chemicals and paint, which is monitored via supplier delivery performance.

8.2.4 Monitoring and Measurement of “Product”

Anodized or painted products are inspected to verify that customer requirements are met. Such inspections are conducted per customer requirements, as well as per our internal requirements. Inspection approvals are documented via sign-offs on the load tickets. Inspection records also include the name of the person responsible for performing the inspections and have the authority to release the product.

Product may not be released until all required/planned inspection and tests are performed with satisfactory results. Exceptions to this require the approval of the Vice President and, where required, of our customer.

8.3 CONTROL OF NONCONFORMITY

Products, which do not conform to product requirements, are identified and controlled to prevent unintended use or delivery. Control and disposition of such products is the responsibility of the Quality Manager. Nonconforming product may be addressed in one of the following ways:

A. Taking action to eliminate the nonconformity;

B. Authorizing its use, release or acceptance under concession through the approval of the Quality Manager and, where required, of our customer;

C. Preventing use of the product through the use of Hold Disposition Tickets.

Records of all such activity, including a description of each nonconformance and actions taken, including concessions obtained are maintained.

All reworked product is verified as conforming to the product requirements.

If nonconforming product is detected after delivery or use has started, appropriate action is taken to assure that the proper activities, including our customers are notified and protected. For details regarding Control of Nonconforming Product, please see Superior Metal Technologies Procedure 8.3.
8.4 ANALYSIS OF DATA

The **Vice President** oversees our efforts to determine the effectiveness of our Quality Management System. It is these efforts that drive continuous improvement at Superior Metal Technologies. Data includes, but is not limited to the following:

A. Customer Satisfaction;
B. Conformity to product requirements;
C. Product and process performance, including possible opportunities for improvement;
D. Supplier performance.

8.5 IMPROVEMENT

8.5.1 Continual Improvement

The **Vice President** is responsible to ensure that our continuous improvement efforts are planned and properly managed so as to continually improve the effectiveness of our Quality Management System. Continuous improvement is accomplished through the following:

A. Our Quality Policy;
B. Analysis of Data;
C. Quality Objectives;
D. Corrective and Preventive action;
E. Internal Audit results and,
F. Management Reviews.

8.5.2 Corrective Action

**Responsibility and Authority: Quality Manager**

Per Superior Metal Technologies **Procedure 8.5.2**, corrective action to deal with existing nonconformance is taken to eliminate the related causes, thereby preventing recurrence. This procedure outlines our systems for the following:

A. Reviewing nonconformance;
B. Handling customer complaints;
C. Determining causes of nonconformance;
D. Actions taken to assure that nonconformance does not recur;
E. Recording the results of corrective action taken and,
F. Reviewing corrective action taken.
8.5.3 Preventive Action

Responsibility and Authority: Vice President

Preventive action is taken to deal with potential nonconformance in order to prevent a nonconformance from occurring. Please refer to Superior Metal Technologies Procedure 8.5.2 in our procedures manual. This procedure outlines our systems for the following:

A. Determining potential nonconformance and their cause;

B. Evaluating the need for action to prevent occurrence of nonconformities;

C. Determining and implementing action needed;

D. Recording the results of action taken and,

E. Reviewing the preventive actions taken
<table>
<thead>
<tr>
<th>Revision Level</th>
<th>Description of Change</th>
<th>Approved By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Revised the Table of Contents to reflect the new revision levels for Sections “B”, “C” and “E”. Section “B” revision “B” revised to include the new quality objectives. Section “C” revision “C” revised to update the organizational leads. Section “E” revision “B” revised to include the process measurable.</td>
<td>CL</td>
<td>7/12/2005</td>
</tr>
<tr>
<td>E</td>
<td>CAR 05070802 – Revised Document 5.0 revision “B” revised section 5.6.1 from “once per calendar year” to “once per registration year”.</td>
<td></td>
<td>7/26/2005</td>
</tr>
</tbody>
</table>