Document Title

SUPPLIER QUALITY SYSTEM REQUIREMENTS

1. SCOPE

This document outlines the quality system requirements for suppliers of raw materials, components, and services used in Accurate Metal Machining products.

These requirements are based on ISO 9001 and AS9100. Compliance to one of these standards is necessary for Accurates chosen suppliers to confirm that Accurate Metal Machining's requirements are met.

Suppliers of Accurate Metal Machining shall not send work to sub-tier suppliers.

Customer designated suppliers must only furnish a Supplier Quality Survey.

2. MANAGEMENT RESPONSIBILITY

General: Supplier management shall ensure that adequate resources are available and assigned to carry out the requirements of this document.

Organization: The responsibility, authority and interrelation of personnel who manage, perform and verify work affecting quality shall be defined and documented. Documentation should include an organizational chart.

Quality Management: Irrespective of other responsibilities, one person, reporting to or a member of management shall be identified as having authority for quality-related activities and resources. This person shall have the organizational responsibility and authority to:

- Identify and record any problems relating to product, process and quality systems;
- Initiate, recommend and provide solutions through designated channels;
- Verify implementation of solutions;
- Initiate action to prevent non-conformities in the product, process and quality system;
- Stop production and control further processing, delivery or installation of non-conforming product until the deficiency or unsatisfactory condition has been corrected.

3. QUALITY SYSTEM

General: The supplier shall establish, document and maintain a quality system as a means of ensuring that products or processes conform to specified requirements. The supplier shall prepare a quality manual that covers the requirements of this standard. The manual shall include or refer to quality system procedures and outline the structure of the documentation used in the quality system. The manual shall be made available to Accurate Metal Machining upon request.

Quality System Procedures: The Quality Manual and supporting procedures shall be:

- Current, documented and approved;
- Implemented effectively.

Quality Planning: The supplier shall define and document how quality requirements will be met (quality planning). The supplier shall give consideration to the following activities, as appropriate, in meeting the specified design and quality requirements for each order:

- Preparation of process control plans and/or inspection plans;
- Identification of potential production problems and actions required to prevent occurrence;
- Identification and acquisition or updating of necessary processes, equipment (including inspection and testing equipment), fixtures, resources and skills, subcontract operations, etc.;
- Identification and acquisition of necessary process monitoring and control methods and devices;
- Identification of suitable verification points at appropriate stages of production, including control of subcontract operations;
- The use of acceptance standards (especially for visual requirements);
- Identification and acquisition of special handling, packaging and storage methods;
- Preparation of appropriate work instructions;
- Identification and preparation of quality records (e.g., checklists, control charts, etc.).

Quality plans shall be reviewed and updated as appropriate when any of the following occur:

- The process is changed;
- The product is changed;
- The process becomes unstable or non-capable.

Notification: Accurate Metal Machining shall be notified of any changes to the following:

- Quality system certification status change;
- Ownership or organizational structure;
- Relocation of any supplier function covered by this specification.

Suspected unapproved, unapproved and counterfeit parts:

- Ensure a process is in place for the prevention of suspected unapproved, unapproved and counterfeit parts.

Flow down to external providers:

- Flow down to sub-tier suppliers any requirements, including customer requirements.

Right of access: Accurate Metal Machining, customers of Accurate, and/or regulatory agencies shall have right of access, with reasonable notice, for the purpose of conducting audits of the supplier's quality assurance systems and processes affecting the product. The supplier shall make available for on-site review any documents, records, or other objective evidence as necessary to understand and evaluate the systems and processes.

Ensure the following:

- Employees understand their contribution to product and / or service conformity;
- Employees understand their contribution to product safety;
- Importance of ethical behavior.

4. CONTRACT (PURCHASE ORDER) REVIEW

General: The supplier shall establish and maintain procedures for Contract (Purchase Order) Review activities. It is the responsibility of the supplier to ensure that product is manufactured to the latest revision of all documents as listed on the purchase order.

Review: Before acceptance of a contract (purchase order), a review shall take place to ensure that:

- requirements are adequately defined, documented and communicated;
- sufficient capability and capacity is available to meet the requirements;
- differences between expected and stated purchase order requirements are resolved, including: delivery dates, revision levels of drawings and specifications, quality requirements, or any additional PO requirements.

Amendment to a Contract (Purchase Order): Changes to purchase orders shall be reviewed as above. Changes to purchase orders must be approved and documented by Accurate. If accepted, the supplier shall immediately communicate the changes to the appropriate functions to ensure the new requirements are met.

Records: Records of contract (purchase order) review activities shall be maintained to demonstrate conformance to documented requirements.

5. DOCUMENT AND DATA CONTROL

General: The supplier shall establish and maintain procedures to control documents and data or records related to activities affecting quality, including applicable documents of external origin.

Document Approval and Distribution: Documents shall be reviewed and approved for adequacy by authorized personnel in accordance with established procedures. Controls shall ensure that:

- Pertinent documents are available at appropriate locations;
- Obsolete documents are identified and removed from points of issue and use;
- Documents indicate authorized approval.

Document Changes: Changes to documents shall:

- Be approved in accordance with established procedures;
- Include indication of authorized approval;
- Be reviewed and approved by the same function responsible for the original review and approval, unless specifically designated otherwise.

Record Retention: Unless otherwise specified on the purchase order, quality records (process control and inspection records, records of non-conformance, etc.) and obsolete documents related to the production of Accurate Metal Machining products shall be retained for a minimum of seven years after final shipment of product to Accurate.

6. IDENTIFICATION AND TRACEABILITY

Manufacturing Requirements: The supplier shall maintain procedures for identifying product during all stages of production, from receipt of materials through delivery of completed product or process. The supplier shall establish and maintain procedures for ensuring traceability requirements.

Accurate Metal Machining-owned Assets: The supplier, when applicable, shall establish and maintain procedures for the identification, maintenance, calibration, tracking & storage of all Accurate owned assets, gauges, & instruments.

7. INSPECTION AND TESTING

General: The supplier shall establish and maintain procedures for conducting and recording inspection and testing activities.

Receiving Inspection and Testing: The supplier shall ensure that incoming product is not used or processed until it has been inspected or otherwise verified as conforming to specified requirements (applicable drawings, specifications and procedures).

In-Process Inspection and Testing: In-process inspection activities shall:

- Consist of quality checks during manufacturing and processing;

Final Inspection and Testing: Final inspection activities shall:

- Verify finished product meets specified requirements prior to shipping;
- Be performed in accordance with documented procedures or quality plan.

8. CONTROL OF INSPECTION, MEASURING AND TEST EQUIPMENT

General: The supplier shall establish and maintain procedures to identify, control, calibrate and maintain inspection, measuring, and test equipment used to determine conformance of Control Procedure: Company and personally owned inspection, measuring and test equipment shall be identified by serial number or other unique designation.

The method and interval of calibration for each item shall be defined and based on:

- type of equipment
- stability characteristics
- required accuracy and precision
- user confidence in the gages ability to perform adequately
- other conditions affecting measurement control

Verification and validation equipment used in the calibration process shall be certified to show valid relationships or traceability to a national standards laboratory (e.g., NIST). If no national standard exists, the equipment shall be certified per guidelines established by the equipment manufacturer.

Inspection and test equipment shall be:

- calibrated in an appropriately controlled environment;
- Maintained at prescribed intervals, or prior to use where applicable.

When inspection and test equipment are found out of calibration, a documented evaluation shall be made to determine:

- validity of previous calibrations;
- Acceptability of items previously inspected by that equipment.

Records to indicate calibration results and status shall be maintained.

Measurement System Analysis: Methods shall be established and documented to assure that inspection and test equipment used in activities affecting product or process quality are appropriate to verify conformance to established requirements. Measurement systems for critical product characteristics should be analyzed using methods such as Gauge Repeatability and Reproducibility (GR&R) studies or ISOPLOTS.

9. CONTROL OF NONCONFORMING PRODUCT

General: The supplier shall establish and maintain procedures to ensure that product which does not conform to specified requirements is prevented from unintended use. As a minimum, this shall include:

- identification
- segregation
- documentation
- evaluation

- disposition
- notification of appropriate personnel, including customers

Review and Disposition of Nonconforming Product: Nonconforming product or material shall be identified and segregated from conforming product or material until disposition has been made. A review shall be performed in accordance with established procedures to determine if product will be returned, reworked, scrapped, or accepted as is.

Rework: All reworked product shall be resubmitted for inspection to verify conformance to original specifications.

Notification: The supplier shall immediately notify Accurate when the supplier identifies conditions that potentially invalidate acceptability of previously supplied product.

10. CORRECTIVE ACTION

General: The supplier shall establish and maintain procedures for implementing corrective and preventive action.

Corrective Action: At a minimum, a corrective action system shall include:

- effective handling of internal and external reports of product and / or performance nonconformities;
- containment (product and / or service issue);
- correction (process issue);
- investigation of causes of non-conformities, including human factors;
- determination of actions needed to eliminate root cause;
- verification that corrective action is taken and effective.

Records pertaining to corrective action taken shall be retained.

11. TRAINING

General: The supplier shall establish and maintain procedures for ensuring that personnel responsible for performing activities that affect product quality are properly trained and qualified.

Training and Qualification: The supplier shall determine the qualifications necessary for all positions in which personnel can affect quality and shall not place unqualified personnel in these positions.

Documentation: Job requirements shall be documented. Records shall indicate that each person meets the requirements applicable to their area of responsibility.