

Apollo **Machining**

Quality Manual

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1. Introduction

Apollo Machining has developed a quality management system to better satisfy the needs of our customers. The scope of this manual encompasses all work performed at the Apollo Machining Facility New Berlin, Wisconsin. Quality Management System (QMS) refers to a system that considers the three main components: quality control, quality assurance and quality improvement. Quality management is focused not only on product or service quality, but also the means to achieve it. A QMS, therefore, uses quality assurance and control of processes, as well as products/services to achieve more consistent quality.

1.1 Reference documents

Document Number	Title
AMDOC 0002	Control of Documents Procedure
AMDOC 0003	Control of Records Procedure
AMDOC 0004	Control of Nonconforming Product Procedure
AMDOC 0005	Corrective and Preventive Action Procedure

2. Company

2.1 Company Overview

Apollo Machining has been in business for over 40 years. Specializing in turning and milling applications from 1-part orders to larger quantities. Apollo can assist your business in quick turn orders as well as breakdown status orders.

3. Exclusions

7.3 Design and Development

Justification: Apollo Machining does not design or develop products for our customers.

7.5.2 Validation of processes for production and service provision

Justification: Apollo Machining does not have any processes where deficiencies become apparent only after the product is in use.

8.2.2 Internal Audit of the Apollo Machining Quality system is not a formal scheduled process. The Apollo Machining Quality Council is made up of senior members of management from all areas of the company. The Quality Council meets regularly and reviews the effectiveness of the management system. On an as needed basis it revises procedures and/or processes and implements changes to meet the needs of the company and our customers

4. Quality management system

4.1 General

Apollo Machining has established and maintains a quality management system and continually improves its effectiveness.

Management has:

- a) identified the processes needed for the quality management system and their application throughout the organization,
- b) determined the sequence and interaction of these processes,
- c) determined criteria and methods needed to ensure that both the operation and control of these processes are effective,
- d) provides the availability of resources and information necessary to support the operation and monitoring of these processes,

Where the organization chooses to outsource any process that affects product conformity to requirements, the organization ensures control over such processes. The type and extent of control to be applied to these outsourced processes are defined within the quality management system.

4.2 Documentation

4.2.1 General

The Apollo Machining system includes

- a) documented statements of a quality policy,
- b) a quality manual,
- c) procedures,
- d) documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of its processes.

4.2.2 Quality Manual

The Apollo Machining quality manual includes:

- a) the scope of the quality management system, included in Section 1 of this manual, and details of and justification for any exclusions given in Section 3 of this manual,
- b) reference to procedures established for the quality management system, that is provided in this document.

4.2.3 Control of Documents

A documented procedure has been established (see Control of Documents Procedure) to define the controls needed:

- a) to approve documents for adequacy prior to issue,
- b) to check and update as necessary,
- c) to ensure that changes and the current revision status of documents are identified,
- d) to ensure that relevant versions of applicable documents are available,
- e) to ensure that documents remain legible and readily identifiable,
- f) to ensure that documents of external origin are identified and controlled, and
- g) to prevent the unintended use of obsolete documents.

4.2.4 Control of Records

Records established to provide evidence of conformity to requirements and of the effective operation of the quality management system shall be controlled.

A documented procedure has been established (see Control of Records Procedure) to define the controls needed for the identification, storage, protection, retrieval, retention and disposition of records.

Records are legible, readily identifiable and retrievable.

5. Management Responsibility

5.1 Management Commitment

Apollo Machining management is committed to the development and implementation of the quality management system and continually improving its effectiveness by

- a) communicating to the organization the importance of meeting customer requirements,
- b) establishing the quality policy,
- c) establishing the Apollo Machining Quality Council,
- d) conducting management reviews.

5.2 Customer Focus

Apollo Machining management ensures that customer requirements are determined and are met with the aim of enhancing customer satisfaction.

5.3 Quality Policy

“Apollo Machining is committed to providing a quality product at a competitive price to ensure customer satisfaction is met or exceeded and has value to all that made or are using the finished products.”

Top management ensures that the quality policy:

- a) is appropriate to the purpose of Apollo Machining.
- b) includes a commitment that all Apollo Machining employees are entrusted, empowered and encouraged to be responsible for attaining the highest quality and maximum value in their work product while providing a positive customer experience,
- c) provides the Quality Council for establishing and reviewing quality strategies and processes,
- d) is communicated and understood within the organization, and
- e) is reviewed for continuing suitability.

5.4 Planning

5.4.1 Quality Objectives

Top management ensures that quality objectives, including those needed to meet requirements for product, are established at relevant functions and levels within the organization.

5.4.2 Quality Management System Planning

Apollo Machining management ensures that

- a) the planning of the quality management system is carried out in order to meet the requirements given in 4.1, and
- b) the integrity of the quality management system is maintained when changes to the quality management system are implemented.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Apollo Machining management communicates the responsibilities and authorities within the organization.

5.5.2 Management Representative

Apollo Machining management has responsibilities and authorities that include:

- ensuring that processes needed for the quality management system are established, implemented and maintained,
- reporting to top management on the performance of the quality management system and any need for improvement, and
- ensuring the promotion of awareness of customer requirements throughout the organization.

5.5.3 Internal Communication

Top management ensures that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the quality management system. This is achieved by scheduled meetings and updates.

5.6 Management Review

5.6.1 General

Apollo Machining Quality Council reviews the organization's quality management system. This review includes assessing opportunities for improvement and the need for changes to the quality management system, including the quality manual, quality policy, procedures and processes.

5.6.2 Review Input

The input to management review includes information on

- a) results of customer audits,
- b) customer feedback,

- c) product conformity,
- d) follow-up actions from previous management reviews,
- e) changes that could affect the quality management system, and
- f) recommendations for improvement.

5.6.3 Review Output

The output from the management review includes any decisions and actions related to

- a) improvement of the effectiveness of the quality management system and its processes,
- b) improvement of product and or services related to customer requirements, and
- c) resource needs.

6. Resource Management

6.1 Provision of resources

The organization determines and provides the resources needed to implement and maintain the quality management system and continually improve its effectiveness and to enhance customer satisfaction by meeting customer requirements. Resource needs are discussed during management review.

6.2 Human resources

6.2.1 General

Personnel performing work affecting conformity to product requirements are deemed competent on the basis of appropriate education, training, skills and experience. Top management is responsible for assessing competence.

6.2.2 Competence and Training

- a) determines the necessary competence for personnel performing work affecting product quality,
- b) provides training or takes other actions to satisfy these needs,
- c) evaluates the effectiveness of the actions taken,

6.3 Infrastructure

During management review Apollo Machining determines the needs and then, provides and maintains the infrastructure required to achieve conformity to product requirements. Infrastructure includes, as applicable

- a) buildings, workspace and associated utilities,

b) process equipment

6.4 Work Environment

During management review Apollo Machining determines the needs and then manages the work environment needed to achieve conformity to product requirements.

7. Product Realization

7.1 Planning of Product Realization.

The organization plans and develops the processes needed for product realization. Planning of product realization is consistent with the requirements of the other processes of the quality management system.

In planning product realization, the organization determines the following, as appropriate:

- a) quality objectives and requirements for the product,
- b) the need to establish processes and documents, and to provide resources specific to the product, required verification, validation, monitoring, measurement, inspection and test activities, specific to
- c) the product and the criteria for product acceptance,
- d) records needed to provide evidence that the realization processes and resulting product meet requirements.

The output of this planning is in a form suitable for the organization's method of operations. Planning output includes contracts, written specification, OEM standards, schedule.

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

The organization determines:

- a) requirements specified by the customer, including the requirements for delivery and post-delivery activities.

7.2.2 Review of Requirements Related to the Product

The organization reviews the requirements related to the product. This review is conducted prior to the organization's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and ensures that:

- product requirements are defined,
- contract or order requirements differing from those previously expressed are resolved, and
- the organization has the ability to meet the defined requirements.

Apollo Machining confirms the customer requirements before acceptance. Where product requirements are changed, Apollo Machining will ensure that relevant documents are amended.

7.2.3 Customer communication

The organization determines and implements effective arrangements for communicating with customers in relation to:

- project information,
- enquiries and contracts including amendments, and
- customer feedback.

7.3 Design and Development *EXCLUDED SEE SECTION #3*

7.4 Purchasing

7.4.1 Purchasing Process

The organization ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product.

The organization evaluates and selects suppliers based on their ability to supply product in accordance with the organization's requirements

7.4.2 Purchasing Information

Purchasing information describes the product to be purchased on the Purchase Requisition.

7.4.3 Verification of Purchased Product

The organization establishes and implements the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

7.5 Production provision

7.5.1 Control of production

Apollo Machining plans and carries out production and service provision under controlled conditions such as,

- a) the characteristics of the product,

- b) work instructions, as necessary,
- c) suitable equipment,
- d) use of monitoring and measuring devices,
- e) the implementation of monitoring and measurement, and
- f) the implementation of release.

7.5.2 Validation of processes for production

Validation of Processes for Production *EXCLUDED SEE SECTION #3*

7.5.3 Identification and traceability

Where appropriate, Apollo Machining will identify the product by suitable means.

7.5.4 Customer property

Apollo Machining will exercise care with customer property while it is under our control.

7.5.5 Preservation of Product

Apollo Machining will preserve the conformity of product during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, this preservation includes identification, handling, packaging, storage and protection.

7.6 Control of Monitoring and Measuring Equipment

Apollo Machining will determine the measuring devices needed to provide evidence of conformity of product to determined requirements.

Where necessary to ensure valid results, measuring equipment will

- a) be calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards;
- b) be adjusted or re-adjusted as necessary;
- c) be identified to enable the calibration status to be determined;

Records of the results of calibration will be maintained.

8. Measurement, Analysis and Improvement

8.1 General

Apollo Machining improves processes needed

- a) to conform to product requirements,
- b) to continually improve the effectiveness of the quality management system.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

As one of the measurements of the performance of the quality management system, Apollo Machining monitors information relating to customer perception as to whether the organization has met customer requirements.

8.2.2 Internal audit

Excluded see section 3.

8.2.3 Monitoring of processes

Apollo Machining applies suitable methods for monitoring the quality management system processes.

8.2.4 Monitoring and Measurement of Product

The organization monitors and measures the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with the planned arrangements.

Product release to customer shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved.

8.3 Control of nonconforming product

Apollo Machining will ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. A documented procedure has been established (see Control of Nonconforming Product Procedure) to define the controls and related responsibilities and authorities for dealing with nonconforming product.

Where applicable, the organization deals with nonconforming product by one or more of the following ways:

- a) by eliminating the detected nonconformity;
- b) by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;

c) by taking action to prevent its use.

Records of the nature of nonconformities and any subsequent actions taken, are maintained.

When nonconforming product is corrected it shall be subject to re-verification to demonstrate conformity to the requirements.

8.4 Analysis of Data

Apollo Machining will determine, collect and analyze appropriate data to demonstrate the suitability and effectiveness of the quality management system.

The analysis of data will provide information relating to

- a) customer satisfaction,
- b) conformity to product requirements,
- c) contract extension, repeat business

Data will be reviewed at the Apollo Machining Quality Council.

8.5 Improvement

8.5.1 Continual improvement

Apollo Machining will continually improve the quality management system through the actions of the Quality Council and management review.

8.5.2 Corrective action

Apollo Machining will take action to eliminate the cause of non-conformities in order to prevent recurrence.

Corrective actions are appropriate to the non-conformities encountered.

A documented procedure has been established (see Corrective and Preventive Action Procedure) that defines requirements for:

- a) reviewing non-conformities,
- b) determining the causes of nonconformities,
- c) evaluating the need for action to ensure that nonconformities do not recur,
- d) determining and implementing action needed,

- e) records of the results of action taken, and
- f) reviewing corrective action taken.

8.5.3 Preventive action

Apollo Machining will determine action to eliminate the causes of potential nonconformities in order to prevent their occurrence.

A documented procedure has been established (see Corrective and Preventive Action Procedure) to define requirements for:

- a) determining potential nonconformities and entering them in the Corrective Action System as Preventive action,
- b) evaluating the need for action to prevent occurrence of nonconformities,
- c) determining and implementing action needed,
- d) records of results of action taken, and
- e) reviewing preventive action taken.

9.0 Revision Log

Revision 00 – Initial Release