

External approval and/or acknowledgment requirements apply prior to issuance or revision of this document: Yes  No Yes 

PROPRIETARY DOCUMENT

No TABLE OF CONTENTS

## QUALITY POLICY

- 1.0 INTRODUCTION / PURPOSE
- 2.0 REFERENCE DOCUMENTS
- 3.0 EXCLUSIONS
  - 3.1 Quality Manual Flow Chart
  - 3.2 Terms & Definitions
- 4.0 QUALITY MANAGEMENT SYSTEM REQUIREMENTS
  - 4.1 General Requirements
  - 4.2 Documentation Requirements
- 5.0 MANAGEMENT RESPONSIBILITY
  - 5.1 Management Commitment
  - 5.2 Customer Focus
  - 5.3 Quality Policy
  - 5.4 Planning
  - 5.5 Responsibility, Authority and Communication
  - 5.6 Management Review
- 6.0 RESOURCE MANAGEMENT
  - 6.1 Provision of Resources
  - 6.2 Human Resources
  - 6.3 Infrastructure
  - 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 Services Provision
  - 7.6 Control of Monitoring and Measuring Devices
- 8.0 MEASUREMENT, ANALYSIS AND IMPROVEMENT
  - 8.1 General
  - 8.2 Monitoring and Measurement
  - 8.3 Control of Nonconforming Product
  - 8.4 Analysis of Data
  - 8.5 Improvement
- 9.0 QUALIFICATION DOCUMENTS
  - 9.1 Scope & Statement of Authority
  - 9.2 Company Organization Chart
  - 9.3 Quality Organization Chart

**QUALITY POLICY STATEMENT (Ref. 5.3)**

It is the policy of VerTechs Enterprises, Inc., to meet or exceed our customers' expectations in providing the best quality products in the aerospace industry.

All our efforts are in full compliance with the AS 9100 and ISO 9001 quality management systems and aerospace standards and are supported by a highly trained and skilled workforce.

Our employees contribute actively to our process to meet customer requirements, increasing customer satisfaction, and continual improvement of products. We pledge to maintain a safe and environmentally friendly workplace as a responsible member of our industry and our community.

VerTechs Enterprises, Inc. top managers are committed to this process. Our managers and owners are also committed to meeting our responsibility to continually improve the effectiveness of the Quality Management System.

This policy has been formulated by the President and executive management staff of VerTechs Enterprises, Inc. The policy is explained and discussed at the general orientation training given to all existing and new employees. The policy is also posted in conspicuous locations throughout the company.



## 1. INTRODUCTION

This quality manual describes the Quality Management System at VerTechs Enterprises, Inc. VerTechs Enterprises, Inc. manufactures high quality aerospace products, and focuses on production, inspection and testing practices that are of high quality and added value that enhance our customers' ability to effectively manage their present and future requirements. VerTechs Enterprises, Inc. is committed to the highest level of customer satisfaction and to long-term continual improvement of its quality management system and related processes.

VerTechs Enterprises Inc. operates two unique business units as follows:

- VerTechs Enterprises Inc. - Aerospace Components (Flight Components, Parts, Assemblies)
  - AS9100 Quality Management System
- Luchner Tool Engineering – Precision Tooling and Ground Support Hardware
  - ISO 9001 Quality Management System

### 1.1 Purpose

This quality manual provides governance for activities related to customer and supplier product quality. This manual is issued and controlled by the VTE Management Representative, Quality Manager of VerTechs Enterprises, Inc. Each section is supported by operation procedure manuals (OPM's) which are referenced within each appropriate section. The Management Representative coordinates periodic reviews and revisions to the quality manual and operation procedure manuals. The OPM review is to ensure that these documents reflect the latest revision of the standard and associated documents as well as continuous improvement of current practices and procedures. Revisions are made to the OPM's when needed.

## 2. REFERENCES

AS 9100	Quality Management Systems – Aerospace Requirements
AS 9104	Aerospace Quality Management System Certification/Registration Programs
AS 9101	Quality Management Systems Assessment
AS 9102	Aerospace First Article Inspections – Requirements
ISO 9001	Quality Management Systems – Requirements
ISO 9000	Quality Management Systems – Fundamentals and Vocabulary
ISO 19011	Guidelines for quality and/or environmental Management System Auditing
ISO 10012	Measurement management systems- Requirements for measurement processes and measuring equipment.
ISO 10007	Guidelines for Configuration Management

## 3. EXCLUSIONS

- The quality management system shall be appropriate to the nature of our organization and products; it must also comply with our customers and statutory / regulatory requirements. For this reason, those requirements of AS 9100 and ISO 9001 that do not apply are excluded from the scope of our quality system. Following rules and criteria are used for excluding irrelevant requirements:
- An AS 9100 and ISO 9001 requirement may be excluded only when both of the following conditions are met:
  - The requirement must be within AS 9100 (Paragraph 7) and/or ISO 9001 Product Realization.
  - The exclusion may not affect our ability, nor absolve us from the responsibility, to provide products that meet or exceed our customer and applicable statutory / regulatory requirements.
- Quality Assurance Manager is responsible for identifying those requirements of AS 9100 and ISO 9001 that do not apply, and to propose exclusions of such requirements from the scope of the quality system.
- Top management has the responsibility and authority for evaluating whether the proposed exclusions are appropriate, and for approving them. Evaluation and approval of exclusions are conducted within the framework of management



reviews of the quality system (refer OPM 5.6.1-1, Management Review).

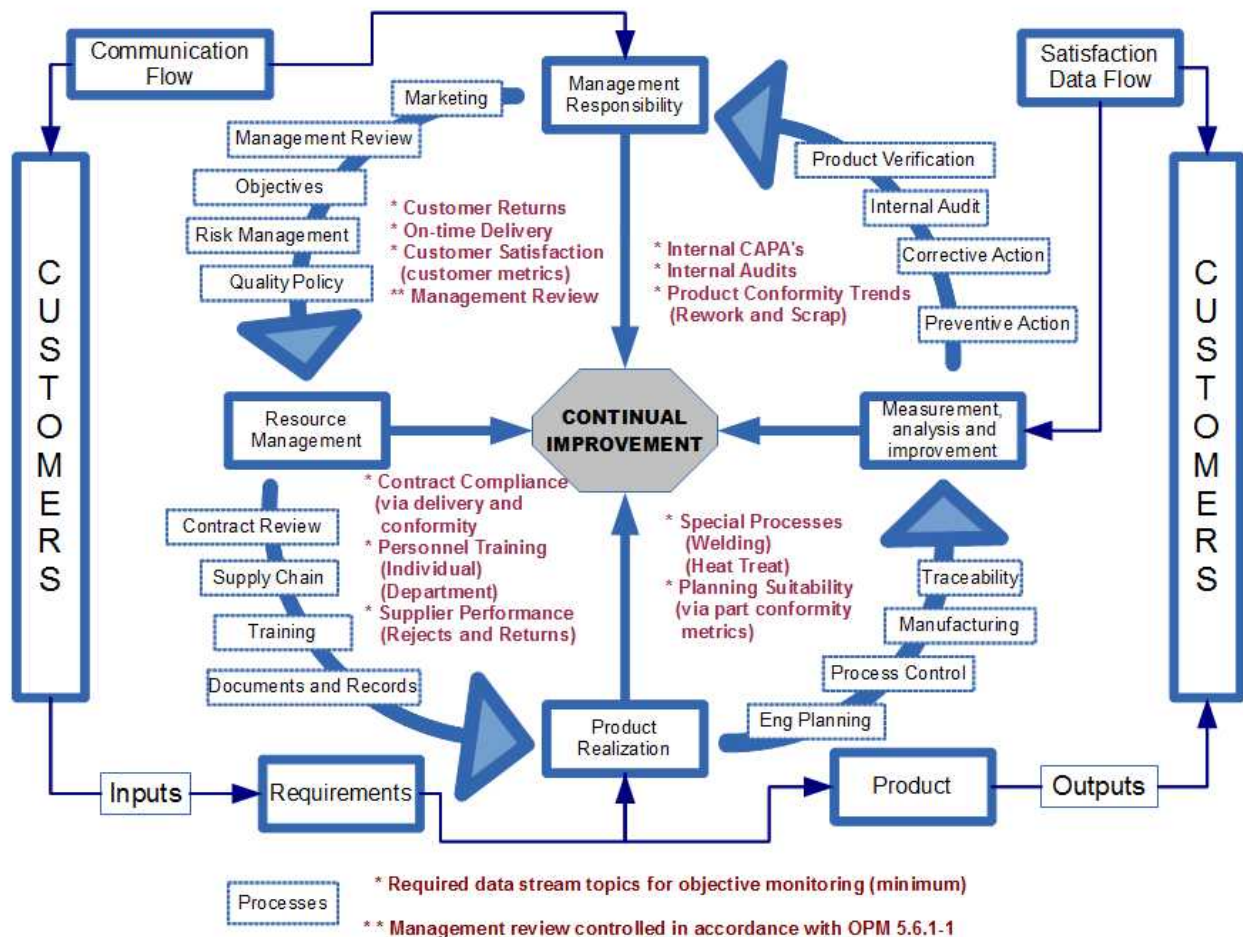
- Any exclusion's taken are documented in this section of the quality manual. The excluded requirements are identified with reference to specific paragraphs and/or statements in the standard. There is also a brief justification why the exclusion is taken and why it is appropriate.

**EXCLUSIONS**

- A. **Exclusion:** ISO 9001/AS9100, Section 7.3, Design and Development.  
**Justification:** VerTechs Enterprises, Inc. does not perform any Designing of products for our customers. All products are produced from customer drawings, specifications, and/or purchase order instructions. VerTechs Enterprises Inc. is excluding all of Section 7.3.
- B. **Exclusion:** ISO 9001:2008/AS 9100 Rev. Section 7.5.1.5 & 7.5.2, Partial exclusion for Service Provisions for "Post Delivery Activities".  
**Justification:** VerTechs Enterprises, Inc. does not provide any "post delivery service activities".

3.1 Quality Manual Process Flow Chart

**VERTECHS QMS PROCESS MAP**



3.1.1 All goals and objectives will be defined by OPM 5.6.1-1 and consistent with the requirements the process map above.

3.2 Terms & Definitions

3.2.1 For the purpose of this Manual, the terms and definitions given in ISO 9000 apply. The following terms have been



changed to reflect the vocabulary currently used:

- 3.2.1.1 The term "organization" replaces the term "supplier" used in ISO 9001, and refers to the unit to which this manual applies.
- 3.2.1.2 The term "supplier" now replaces the term "subcontractor".
- 3.2.1.3 Throughout the text of this manual, whenever the term "product" occurs, it can also mean "service".
- 3.2.1.4 The term, statutory / regulatory can be expressed as legal requirements.

#### **4. QUALITY MANAGEMENT SYSTEM**

##### **4.1 General Requirements**

VerTechs Enterprises, Inc. has established documents, implements and maintains a quality management system and continually improves its effectiveness in accordance with the requirements contained in ISO 9001, AS9100 and other customer required documentation. VerTechs Enterprises, Inc. performs the following:

- a) Determines the processes needed for the quality management system and their application throughout the organization;
- b) Determines the sequence and interaction of these processes;
- c) Determines criteria and methods needed to ensure that both the operation and control of these processes remain effective;
- d) Ensures the availability of resources and information necessary to support the operation and monitoring of these processes;
- e) Monitors, measures, where applicable and analyzes these processes; and
- f) Implements the actions necessary to achieve planned results and continual improvement of these processes.
  - These processes are managed by VerTechs Enterprises, Inc. in accordance with the requirements of this International Standard.
  - When outsourcing of any processes of parts VerTechs Enterprises, Inc. shall flow down all requirements to ensure control of the source.
  - The control of all outsourcing of processes is identified within the Quality Management System.

- 4.1.1 These processes are managed by VerTechs Enterprises, Inc. in accordance with the requirements contained in the ISO 9001 International Standard and AS 9100 Quality Management System – Aerospace Requirements. The general quality system documentation requirements are contained in our Operation Procedure Manuals Manual OPM 4.2.1-1, Quality System Documentation.

##### **4.2 Documentation Requirements**

###### **4.2.1 General**

The quality management system documentation includes:

- a) A written quality policy supported by goals and objectives;
- b) A quality manual;
- c) Operation Procedure Manuals, (OPM's); which are documented procedures and records required by this International Standard, and
- d) Documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of its processes. (i.e. work instructions, technical specifications, etc. ref. OPM 4.2.3-1)
- e) Quality system requirements imposed by the applicable Regulatory Authorities

- 4.2.1.1 All personnel will have access to the complete Quality System documents and are trained on their purpose and use.
- 4.2.1.2 All customers and regulatory authorities shall have access to VerTechs Enterprises, Inc. Quality Manual on our web page, ([www.vertechsusa.com](http://www.vertechsusa.com)) or as requested.



#### 4.2.2 Quality Manual

VerTechs Enterprises, Inc. has established and maintains a quality manual that includes:

- a) The scope of the quality management system, including details of and justification for any exclusion;
- b) Reference to Operation Procedure Manuals established for the quality management system; and
- c) A description of the interaction between the processes of the quality management system.

4.2.2.1 Where the term "documented procedure" appears within the International Standard, this means that the procedure is established, documented, implemented and maintained by VerTechs Enterprises, Inc. Management.

4.2.2.2 The extent of the quality management system documentation may vary due to the organization size, type of processes, complexity, process interactions and competence of personnel.

#### 4.2.3 Control of documents

Documents required by the quality management system are controlled by the Management Representative, TDC. Technical documents are controlled by Operation Procedure Manual OPM 4.2.3-1, Control of Documents. This OPM is established to determine the controls needed:

- a) To approve documents for adequacy prior to issue;
- b) To review and update as necessary and re-approve revisions to documents;
- 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 at points of use;
- e) To ensure that documents remain legible and readily identifiable;
- f) To ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the quality management system are identified and their distribution controlled;
- g) To prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

4.2.3.1 VerTechs Enterprises, Inc. shall coordinate all document changes with customers and /or regulatory authorities in accordance with contract or regulatory requirements.

#### 4.2.4 Control of Quality Records

- a) Records are established to provide evidence of conformity to requirements and of the effective operation of the quality management system shall be controlled.
- b) Records shall remain legible, readily identifiable and retrievable. (Archives)
- c) Operation Procedure Manual OPM 4.2.4-1, Control of Records, is established to determine the controls needed for the identification, storage, protection, retrieval, retention and disposition of all Quality Records.
- d) VerTechs Enterprises, Inc. requires its suppliers to maintain all records pertaining to processing of parts as defined in SQR-9001 and purchase order "Quality Notes".
- e) All records pertaining to any products supplied by VerTechs Enterprises, Inc. shall be made available to our customers and Regulatory Authorities.

#### 4.3 Configuration Management

The organization documents and maintains a configuration management process appropriate to the product. (Ref. OPM 7.1-1, Planning of Product Realization, OPM 4.2.4-1, Control of Records)

### 5. MANAGEMENT RESPONSIBILITIES

#### 5.1 Management Commitment

Top management at VerTechs Enterprises, Inc. provides evidence of its commitment 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 as well as statutory and regulatory requirements;
- b) Establishing the quality policy which is included in this quality manual;





- c) Ensuring that quality objectives are established;
- d) Conducting management reviews; and
- e) Ensuring the availability of resources.

## 5.2 Customer Focus

Top management ensures that customer requirements are determined and are met with the intention of enhancing customer satisfaction. Determining and meeting customer requirements as addressed in OPM 7.1-1 Planning of Product Realization, OPM 7.2.2-1 Contract Review and OPM 8.2.1-1 Customer Satisfaction.

## 5.3 Quality Policy

Top management ensures that the quality policy:

- a) Is appropriate to the purposes of VerTechs Enterprises, Inc.,
- b) Includes a commitment to comply with requirements and continually improve the effectiveness of the quality system,
- c) Provides a framework for establishing and reviewing quality objectives,
- d) Insures the quality objectives are communicated and understood within the organization, and
- e) Reviews the quality objectives for continuing suitability at each management review.

## 5.4 Planning

### 5.4.1 Quality objectives

- a) Top management guarantees that quality objectives, including those needed to meet requirements for products and services are established at relevant functions and levels within VerTechs Enterprises, Inc.
- b) The quality objectives are measurable, consistent with the quality policy and reviewed during each management review in compliance with OPM 5.6.1-1 Management Review.

### 5.4.2 Quality management system planning by senior management ensures that:

- a) The planning of the quality management system is carried out in order to meet the requirements in paragraph 4.1 above, as well as the quality objectives.
- b) The integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

5.4.2.1 Management Review Records makes evident that senior management is committed to identifying, recording and communicating the requirements of the quality management system. This is evident by management addressing the Quality Objectives and status of their implementation.

5.4.2.2 Quality management system planning is addressed in OPM 4.2.1-1 Document Requirements, as well as in each relevant Operation Procedure Manual.

## 5.5 Responsibility, Authority and Communication

### 5.5.1 Responsibility and authority

Top management ensures that responsibilities and authorities are defined and communicated within VerTechs Enterprises, Inc. through Job descriptions which are maintained by Human Resources for each function within VerTechs Enterprises, Inc. These Job Descriptions identify departmental responsibilities and authorities. The following is a brief summary of job responsibilities within VerTechs Enterprises, Inc.:

- a) President
  - Formulates the quality policy
  - Provides resources necessary to maintain the quality system
  - Conducts management reviews of the quality system
  - Establishes and updates the business plan
- b) Vice President



- Assists the President in all matters
  - Manages the safety and environmental control programs
- c) Manufacturing Engineering Manager
- Participates in product quality planning
  - Controls and monitors processes
  - Develops manufacturing processes
  - Verifies process capability
  - Selects methods for process performance monitoring
  - Establishes manufacturing job packages
  - Ensures preventive maintenance is performed
  - Manages & participates in continuous improvement program, (MCAB)
  - Manages Engineering Document Control, (drawings, work instructions, etc.)
  - Develops and builds required tooling
- d) Production Control Manager
- Participates in product quality planning
  - Coordinates schedules for WIP in manufacturing
  - Establishes manufacturing job packages
  - Performs preventive maintenance
  - Plans manufacturing facilities, equipment and processes
  - Participates in continuous improvement program, (MCAB)
  - Responsible for packaging of products
  - Ships products to customers
  - Receives purchased products
  - Marks or verifies material acceptance and product identification
  - Ensures all shop personnel are properly trained
  - Establishes job descriptions for all shop personnel.
- e) Customer Service / Production Control
- Participates in product quality planning
  - Schedules WIP for manufacturing
  - Material Control, in shop
  - Packaging and Shipping
- f) Sales
- Collects and analyzes customer satisfaction data
  - Establishes specifications for new products (product briefs)
  - Advertises and promotes company's products
  - Carries out Request for Quote (RFQ), contract and contract amendment reviews
- g) Purchasing
- Prepares and approves purchasing documents
  - Orders controlled materials for use in the shop
- h) Human Resources
- Defines personnel qualification requirements
  - Implements actions to motivate personnel
  - Maintains all personnel training records
  - Ensures training is conducted and recorded
  - Ensures training effectiveness evaluations are conducted and recorded
  - Maintains the training matrix
- i) Quality Manager / Engineer





- Participates in product quality planning
- Establishes and maintains the quality management system
- Responsible for Auditing implementation and effectiveness of the quality system
- Initiates requests for, and follows up on, corrective and preventive actions
- Coordinates & participates in continual improvement program (MCAB)
- Selects and approves qualified suppliers
- Carries out supplier quality surveys and audits
- Evaluates and reports on the performance of suppliers
- Assures the system Maintains and Calibrates IM and TE
- Monitors the Customer Return Material & Authorization (CRM) program
- Manages product rework
- Material Control, receiving, inspection & releasing
- Ensures the inspections and testing functions are performed
- Handles nonconforming products with support from manufacturing engineers
- Coordinates quality system document control activities, TDC.
- Ensures all personnel are trained in the process of the quality management system Operation Procedure Manuals, OPM's.
- Ensures the performance of, and maintains the calibration of IM and TE

## j) Quality Assistant / TDC

- Participates in product quality planning
- Supports the quality management system
- Assists in follow-up on corrective actions (CAR's), customer and internal
- Performs follow-up on internal audits to assure completion
- Supports the quality manager in completion of supplier and third party audits
- Maintains records on the Customer Returned Material (CRM)
- Performs all responsibilities of Technical Document Control (TDC)
- Supports & participates in continuous improvement program, (MCAB)

## k) Management Representative

- VerTechs Enterprises, Inc. appoints the Quality Manager as the Management Representative. The Management Representative has the authority and responsibility to ensure that the quality management system is maintained and its efficiency is continually improved, to report on the performance of the quality management system to top management, to ensure the promotion of awareness of customer requirements throughout VerTechs Enterprises, Inc. and to ensure that the system always complies with the requirements of AS 9100, ISO 9001 and other customer operating system requirements.

5.5.2 Management Representative: Top management shall appoint a member of the organization's management who, irrespective of other responsibilities, shall have responsibility and authority that includes:

- a) Ensuring that processes needed for the quality management system are established, implemented and maintained.
- b) Reporting to top management on the performance of the quality management system and any need for improvement.
- c) Ensuring the promotion of awareness of customer requirements throughout the organization.
- d) The management representative shall have the organizational freedom to resolve matters pertaining to quality.
- e) VerTechs Enterprises, Inc. appoints the Quality Manager as the Management Representative

## 5.5.3 Internal communications

Top management makes certain that appropriate communication processes are established throughout VerTechs Enterprises, Inc. and that communication takes place regarding the effectiveness of the quality system

## 5.6 Management Review, OPM 5.6.1-1

**5.6.1 General**

Management review meetings are conducted quarterly or as necessary. The purpose of these reviews is to assess the continuing effectiveness, adequacy and suitability of the quality management system. Reviews include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. The President is responsible for scheduling and conducting these reviews. Conclusions of the reviews are recorded. Detailed rules for scheduling, conducting, and recording management reviews are provided in OPM 5.6.1-1 Management Review.

**5.6.2 Review input**

The input to management reviews includes information on:

- a) Results of audits,
- b) Customer feedback, (Customer Satisfaction)
- c) Process performance and product conformity,
- d) Status of preventive and corrective actions,
- e) Follow-up actions from previous management reviews,
- f) Changes that could affect the quality management system, and
- g) Recommendations for improvement.

**5.6.3 Review output**

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

- a) Improvement of the effectiveness of the quality management system and its processes,
- b) Improvement of products and services related to customer requirements, and Resource needs.
- c) Changes in Quality Objectives.
- d) Documentation of actions necessary to establish process improvements.

**6. RESOURCE MANAGEMENT****6.1 Provision of resources**

Top management at VerTechs Enterprises, Inc. determines and provides the resources needed:

- a) To implement and maintain the quality management system and to continually improve its effectiveness, and
- b) To enhance customer satisfaction by meeting customer requirements.

**6.2 Human resources****6.2.1 General**

- a) Personnel performing work affecting conformity to product requirements shall be competent on the basis of appropriate education, training, skills and experience as defined in their job description.
- b) Review training records and matrix. Update as new training is completed. OPM 6.2.2-1 Training, addresses the qualifications and competence of company personnel.

Note: Conformity to product requirements may be affected directly or indirectly by personnel performing any task within the quality management system.

**6.2.2 Competence, Training and Awareness of Department managers:**

- a) Determine the necessary competence for personnel performing work affecting conformity to product requirements. Competence of training may be determined by individual testing.
- b) Where applicable provide training or takes other actions to achieve the necessary competence.
- c) Evaluate the effectiveness of the actions taken.
- d) Ensure that company personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. Review personnel training records.
- e) Human Resources maintain appropriate records of education, training, skills and experience on a training



matrix.

### 6.3 Infrastructure

Manufacturing Operations determines, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes,

- a) Facilities, workspace and utilities.
- b) Process equipment, including both hardware and software.
- c) Supporting services, such as transport, communication or information systems.

### 6.4 Work environment

- a) Manufacturing Operations determines and manages the work environment and safety needed to achieve conformity to product requirements, including work environmental and safety considerations.
- b) Factors that may affect the conformity of the product includes temperature, humidity, lighting, cleanliness, protection from electrostatic discharge, etc. OPM 6.4-1 Work Environmental and Safety addresses these concerns.

Note: The term work environment relates to conditions under which work is performed including physical, environmental, and other factors (such as noise, temperature, humidity, lighting, or weather).

## 7. PRODUCT REALIZATION

### 7.1 Planning of product realization

- a) VerTechs Enterprises, Inc. plans and develops the processes needed for product realization.
- b) Planning of product realization is consistent with the requirements of other processes of the quality management system.
- c) In planning product realization, VerTechs Enterprises, Inc. determines the following, as appropriate:
  - Quality objectives and requirements for the product,
  - The need to establish processes and documents and to provide resources specific to the product;
  - Required verification, validation, monitoring, measurement, inspection activities specific to the product and the criteria for product acceptance;
  - Records needed to provide evidence that the realization processes and resulting product meet requirements.
  - The identification of resources to support operation and maintenance of the product.
- d) The output of this planning is in a suitable form for VerTechs Enterprises, Inc.'s method of operations.

7.1.1 Project Management and Product Realization shall be in accordance with OPM 7.1-1.

#### 7.1.2 Risk Management

7.1.2.1 During product realization each department will communicate with each other, the customer and suppliers to mitigate risk that exceeds the defined risk acceptance. All personnel will assess risk using their experience, judgment and the risk management procedure (OPM 7.1.2-1) to assure that the company and suppliers are capable of making the product. The risk assessment is completed at the end of the quoting process on Customers RFQ (Request for Quote), using the quote review stamp. The risk assessment is based on a 5 point rating (1 being the lowest risk and 5 being the highest risk). Risk requirements determined as:

- a) **Material Availability:** Can the correct material, with the appropriate dimensions and specifications required for the job be acquired, within an appropriate time frame, considering the customer's due date.
- b) **Manufacturability:** Is the ability to make the customers product to print using a planned process and current available resources with considerations to customer deadlines and correctness.
- c) **Outside Processing:** Assessment will be conducted by reviewing suppliers' ratings and risks, with consideration to the likelihood of the suppliers' ability to be on time and to be without rejections. The



supplier best suited for each outside process is to be chosen.

- d) Lead Time: The lead time will take into consideration: material availability, manufacturability, outside processing and the customers requested due date.

## 7.2 Customer-related processes

### 7.2.1 Determination of requirements related to the product Purchase Order determines:

- a) Requirements specified by the customer, including the requirements for delivery and post-delivery activities,
- b) Requirements not stated by the customer but necessary for specified or intended use, where known,
- c) Statutory and regulatory requirements applicable to the product, and;
- d) Any additional requirements considered necessary by VerTechs Enterprises, Inc.
- e) These determinations are addressed in OPM 7.2-1 and OPM 7.2.2-1.

Note: Post delivery activities include, for example, actions under warranty provisions, contractual obligations such as maintenance services, and supplementary services such as recycling or final disposal.

### 7.2.2 Review of requirements related to the product production

- a) All affected departments shall review the requirements related to the product. This review is conducted prior to VerTechs Enterprises, Inc.'s commitment to supply a product to the customer. These department personnel must be certain that:
  - Product requirements are defined,
  - Contract or order requirements differing from those previously expressed are resolved, and
  - VerTechs Enterprises, Inc. has the ability to meet the defined requirements.
  - The risks, (e.g. new technology, short delivery time) are evaluated.
- b) Records of the results of the review and actions arising from the review are maintained on the Contract Review form in the job folder.
- c) Where the customer provides no documented statement of requirement, the customer requirements are confirmed by Customer Service, Engineering, or Quality before acceptance.
- d) Where product requirements are changed, Customer Service, Engineering, or Quality ensures that relevant documents are amended and that relevant personnel are made aware of the changed requirements.
- e) OPM 7.2.2-1 addresses the requirements for receiving and reviewing Requests for Quote (RFQs), quoting, receiving and reviewing contracts, and receiving and reviewing contract amendments.

### 7.2.3 Customer communication

- a) VerTechs Enterprises, Inc. determines and implements effective arrangements for communicating with customers in relation to:
  - Product information.
  - Inquiries, contracts or order handling, including amendments.
  - Customer feedback, including customer complaints.
- b) OPM 7.2.2-1 addresses customer communications concerning product information, inquiries, contracts, and order handling. OPM 8.2.1-1 Customer Satisfaction, addresses customer feedback. OPM 8.3-1 & 8.5.2-1 addresses the receipt, processing and resolution of customer returns and customer complaints

## 7.3 Design and development

VerTechs Enterprises, Inc. does not design its products, see exclusions. (Ref. para 3.0)

## 7.4 Purchasing (OPM 7.4.1-1, 7.4.2-1, 7.4.3-1 and 7.4.3-2)

### 7.4.1 Purchasing processes



- a) Quality Assurance ensures that purchased products and services conform to specified purchase requirements.
- b) The type and extent of control applied to the supplier and the purchased product or service is dependent on the effect of the purchased product or service on subsequent product realization or the final product.
- c) VerTechs Enterprises, Inc. is responsible for all purchases of products and materials from supplier's even suppliers that hold customer / OEM approvals.
- d) Quality Assurance evaluates and selects suppliers based on their ability to supply products and services in accordance with VerTechs Enterprises, Inc.'s requirements.
- e) Criteria for selection, evaluation and re-evaluation are established.
- f) Records of the results of evaluations and any necessary actions from the evaluations are maintained.

VerTechs Enterprises, Inc. is responsible for the following:

- a) Maintaining a register of approved suppliers is the responsibility of Quality.
- b) A quarterly review of supplier's performance is conducted and reported to the supplier.
- c) A letter stating the status of the supplier is sent to the Quality contact each quarter with the status report.
- d) When required VerTechs Enterprises, Inc. shall use only customer approved suppliers.
- e) The Quality Manager has the authority to disapprove a supplier for not meeting specified requirements of quality and/or delivery of product / materials.

7.4.1.1 The selection, evaluation and re-evaluation of suppliers shall be per OPM 7.4.1-1 (Approval and Evaluation of Suppliers).

7.4.2 Purchase orders describe the product or service to be purchased, including where appropriate:

- a) Requirements for approval of product, procedures, processes and equipment.
- b) Requirements for qualification of personnel.
- c) Quality management system requirements.
- d) Include the name or other positive identification, and applicable issues of specifications, drawings, process requirements, inspection instructions and any other relevant technical data.
- e) Requirements for test, examination, inspection and related instructions for acceptance by VerTechs Enterprises, Inc.
- f) Requirements for test specimens (e.g., production method, number, storage conditions) for design approval, inspection, investigation or auditing.
- g) Requirements relative to:
  - Supplier notification to VerTechs Enterprises, Inc. of nonconforming product.
  - Arrangement for VerTechs Enterprises, Inc. approval of supplier nonconforming materials.
- h) The requirements for the supplier to notify VerTechs Enterprises, Inc. of changes in production and/or process definition and, where required, obtain organization approval.
- i) A right of access by VerTechs Enterprises, Inc., our customer, and other regularity authorities to all facilities involved in the order and to all applicable records.
- j) The requirements for the supplier to flow down the sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required.
  - Purchasing ensures the adequacy of specified purchase requirements prior to their communication to the supplier.

7.4.3 Verification of product, OPM 7.4.3-1 & 7.4.3-2

- a) Quality Assurance establishes and implements the inspection necessary for ensuring that purchased product / raw materials meets specified purchase order requirements. Receiving verification may include obtaining objective evidence of the quality of the product and/or raw materials received from a supplier. This could include Certification of Conformance, test reports, statistical records, process control charts, inspection reports, and/or copies of audits at supplier's premises. Review of the required documentation, inspection of products and/or raw materials upon receipt and delegation of verification to the supplier, or supplier certification. Operation Procedure Manual OPM P-7.4.3-1, Verification of Product (Receiving Inspection), addresses inspection of received products.



- b) All material shall be held by receiving inspection, (material control) until it has been verified as conforming to specified requirements.
- c) When VerTechs Enterprises, Inc. utilizes test reports to verify purchased products and/or raw material the test reports must be verified as acceptable to the specified specifications before release of the material. (Example: verify Hast-x material to the requirements of AMS 5536)
- d) VerTechs Enterprises, Inc. shall perform a validation test of each supplier's raw materials by testing at minimum annually. ( Send test material to an independent lab for minimum of chemical analysis)
- e) When VerTechs Enterprises, Inc. delegates verification of materials or parts to our suppliers the verification requirements shall be identified on the purchase order. (Purchase orders for raw materials and products require the addition of "Q" notes on the purchase order).
- f) Where VerTechs Enterprises, Inc. or its customers intend to perform verification at the supplier's premises, Purchasing states the intended verification arrangements and methods of product release in the purchase order.
- g) When specified in the contract, the supplier shall offer the right to verify at the suppliers premises or sub-tier suppliers premises that the product / material conforms. This right to verify is afforded to our customer, our customer representative, and/or VerTechs Enterprises, Inc. personnel.
- h) It is insured that verification by the customer is not used by VerTechs Enterprises, Inc. as evidence of effective control of quality by the supplier. It does not absolve VerTechs Enterprises, Inc. of the responsibility to provide acceptable products / materials, nor shall it preclude subsequent rejection by the customer). This is in compliance with OPM 7.4.2-1, Purchasing Information.

## 7.5 Production and services provision

### 7.5.1 Control of production and services provision

- a) VerTechs Enterprises, Inc. plans and carries out production and services under controlled conditions. Controlled conditions include, as applicable:
  - The availability of information that describes the characteristics of the product (refer to OPM 7.2.2-1 Order Processing, Contract Review; OPM 7.1-1 Planning of Product Realization).
  - The availability of work instructions, as necessary (refer to OPM 7.1-1 Planning of Product Realization and OPM 4.2.3-1 Control of Documents and OPM 7.5.1.3-3 Control of Data).
  - The use of suitable equipment (refer OPM 7.1-1, Planning of Product Realization, OPM 7.5.1-1, Control of Production and Service Provisions; OPM 7.5.1.3-1, Tool Control and OPM 7.5.1.3-2, Tool Inspection).
  - The availability and use of monitoring and measuring devices (refer to OPM 7.6-1, Control of M & M.)
  - The implementation of monitoring and measurement (refer to OPM 7.1.1, Planning of Product Realization, OPM 7.5.1.1-1, Production Process Verification), OPM 7.6.1-1, Control of M & M Equipment, OPM 8.2.3-1, Statistical and Improvement Techniques).
  - The implementation of release, delivery and post-delivery activities (refer to OPM 7.1-1, Planning of Product Realization, OPM 7.5.1.1-1, Production Process Verification, OPM 7.5.5-1, Preservation of Product).
  - Accountability of all parts during manufacturing (e.g. parts quantity, split orders, nonconforming parts). (Reference OPM 7.1-1, Planning of Product Realization, Para 14.5, & OPM 8.3-1, Control of Non-conformances.
  - Evidence of completion of all manufacturing and inspection operations as planned, or as otherwise authorized. (reference OPM 7.1-1, Planning of Product Realization)
  - A provision for the prevention, detection, and removal of foreign object damage, FOD. (Reference OPM 7.5.5-1, Preservation of Product.)
  - Monitoring and control of utilities and supplies such as water, compressed air, electricity and chemical products to the extent they affect product quality.
  - Criteria for workmanship, which shall be stipulated in the clearest practical manner (e.g. written standards, representative samples or illustrations, OPM 7.1-1, Planning of Product Realization)
- b) Production planning considered the following as applicable:
  - Establish process controls and development of control plans were key characteristics have been identified.
  - Identify in-process verification points when adequate verification of conformance cannot be performed at a later stage of realization.





- The design, manufacture and use of tooling so that variable measurements can be taken, particularly for key characteristics.
- Special processes, (see 7.5.2)

c) Production operations shall be carried out in accordance with approved data.

- Controlled data shall include drawings, parts lists, and process flow charts including inspection operations. Production documents (e.g. travelers, router, work orders process data cards), and inspection requirements.
- Lists of specific or non-specific tools and machine programs required and any specific instructions associated with their use.

(Reference OPM 7.1-1, Planning of Product Realization)

#### 7.5.1.1 Production Process Verification

VerTechs uses a representative item from the first production run of a new part or assembly to verify that the production processes, production documentation and tooling are capable of producing parts and assemblies that meet requirements. This process is repeated when changes occur that invalidate the original results (e.g., engineering changes, manufacturing process changes, tooling changes).

Production process verification is conducted in accordance with OPM 7.5.1.1-1.

#### 7.5.1.2 Control of production process changes. (7.5.1.2)

- a) Personnel authorized to make changes are Manufacturing and Quality Engineers.
- b) When changes are required by the customer the contact person, (ME or QE) must obtain approval from the customer and/or regularity authority in the form of a letter, fax, change notice, e-mail etc.
- c) All changes to any process must be documented using the same documentation and a record placed into the job folder and in the Deviation Log.
- d) Procedures must be followed to control implementation of the changes.
- e) Changes to the production processes shall be assessed to confirm that the desired effect has been achieved without adverse effects to product quality.

#### 7.5.1.3 Control of production equipment, tools and applicable machine programs. (OPM 7.5.1.3-1)

- a) Production equipment, tools and programs shall be validated prior to use in production. They shall be maintained and inspected periodically according to OPM 7.5.1.3-2, Tool Inspection, OPM 7.6.1-1, Control of M & M Equipment, and OPM 7.5.1-1, Control of Production and Service Provisions).
- b) First Article Inspection is required on first run parts, tools, etc. as defined in OPM 7.4.3-2, Verification of Product, Testing.
- c) Tooling shall be stored and issued as defined in OPM 7.5.1.3-1, Tool Control and periodically checked for condition as defined in OPM 7.5.1.3-2, Tool Inspection.
- d) When planning requires that processing be performed by an outside source the instructions shall specify identify the source and the processing required. This is defined in OPM 7.1-1, Planning of Product Realization.

#### 7.5.1.4 Control of service operations

See exclusions. (Ref. para 3.0)

#### 7.5.2 Validation of processes for production and service provision

VerTechs Enterprises Quality Assurance validates any processes for production and services where the resulting output cannot be verified by subsequent monitoring or measurement and, as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered (refer to OPM 7.1-1, Planning of Product Realization). Validation demonstrates the ability of these processes to achieve planned results.

- a) VerTechs Enterprises, Inc. has established arrangements for these processes including, as applicable:



- Defined criteria for review and approval of the processes.
- Approval of equipment and qualification of personnel.
- Use of specific methods and procedures.
- VerTechs Enterprises, Inc. shall control all significant operations and special processes in accordance with instructions in OPM 7.1-1, Planning of Product Realization.
- Requirements for records.
- Revalidation of processes.

- b) Confirmation of results of the production of parts shall be recorded and verified. (OPM 7.1-1, Planning of Product Realization) This shall include special processing. (Ref. OPM 7.6-2, EDM Testing & Scheduling)

#### 7.5.3 Identification and traceability, OPM 7.5.3-1

- a) Where appropriate, VerTechs Enterprises, Inc. identifies its products by suitable means throughout product realization process.
- b) VerTechs Enterprises, Inc. maintains the identification of the configuration of the product in order to identify any differences between the required configuration and the actual configuration.
- c) Quality Assurance identifies the product status with respect to monitoring and measurement requirements.
- d) VerTechs Enterprises, Inc. shall maintain a system for identifying operators and for controlling that identification. (Ref. OPM 7.5.3-2, Acceptance Authority Media).
- e) Where traceability is a requirement, VerTechs Enterprises Quality Assurance shall control the unique identification of the product and maintain records. OPM 7.5.3-1, Identification and Traceability, addresses these requirement.
- f) VerTechs Enterprises, Inc. shall provide within the operating system and according to the level of traceability defined in the customer or regulatory authority requirements a level of traceability for:
  - Identification to be maintained through the product life.
  - All products shall be manufactured from the same batch or from the same manufacturing batch to be traced, as well as the destination (delivery, scrap) of the same products of the same batch.
  - In any assembly, the identity of its components and those of the next higher assembly shall be able to be traced.
  - In any given product, a sequential record of its production (manufacturing, assembly, or Inspection) shall be retrievable.

#### 7.5.4 Customer property

- a) VerTechs Enterprises, Inc. is accountable to our customers for any customer owned tooling received at VTE. These tools shall be shown on a Certified Tool List. This accountability continues until formally terminated, in writing, by the customer or return of the tooling. Only the customer may relieve VTE of accountability of their tooling once accountability has been established.
- b) Tool property records (Certified Tool List) for customer owned tools are subject to periodic audit by the customer. An auditor may want to visit VTE to account for their tools. VTE would be required to account for these tools as well as their condition. When these audits are conducted VTE would be responsible for assisting the customer representative in conducting the audit.
- c) If a customer property is lost, damaged, or otherwise found to be unsuitable for use, then VerTechs Enterprises shall report this to the customer and maintain records.
- d) Customer supplied product is controlled as defined in OPM 8.3-1, Control of Nonconformances, paragraph 6.3.

#### 7.5.5 Preservation of product

- a) Manufacturing Engineering & Operations preserves the product during internal processing and delivery to the intended destination in order to maintain conformity to requirements.
- b) As applicable, shall include identification, handling, packaging, storage and protection. Preservation shall also apply to the constituent parts of a product.
- c) Preservation also applies to the component parts of a product.
- d) Preservation of product shall also include, in accordance with product specifications and/or regulations, provision for:



- Cleaning
  - Prevention, detection and removal of foreign object damage, (FOD).
  - Special handling of sensitive products as applicable.
  - Marking and labeling including safety warnings.
  - Shelf life control and stock rotation as applicable.
  - Special handling of hazardous materials.
- e) To prevent against loss and deterioration, all documents required by the customer and PO are maintained by TDC. (Ref. OPM 4.2.3-1, Control of Documents).
- f) These requirements are addressed in OPM 7.5.3-1, Identification and Traceability; OPM 8.3-1, Control of Nonconformances, OPM 7.5.5-1 Preservation of Product.

#### 7.6 Control of M & M Equipment, OPM 7.6-1

- a) VerTechs Enterprises Quality Assurance determines the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of products to requirements.
- b) Quality Assurance shall also maintain a calibration register of the monitoring and measuring equipment. Quality shall also establish written procedures for calibration of these tools, including details of type, unique identification, location, frequency of checks, check method and acceptance criteria.
- Monitoring & measuring equipment include, but are not limited to: test hardware, test software, automated test equipment (ATE) and plotters used to produce inspection data. It also includes personally owned and customer supplied equipment used to provide evidence of product conformity.
- d) Quality Assurance establishes processes to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.
- When monitoring and measuring of equipment are such that they cannot be carried out by internal personnel the calibration of this equipment shall be performed by an approved outside source.
- e) Where necessary to ensure valid results, measuring equipment is:
- Calibrated or verified, or both at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards, (NIST). Where no such standards exist, the basis used for calibration or verification is recorded;
  - Adjusted or re-adjusted, as necessary
  - To be identification in order to control and determine its calibration status;
  - Safeguarded from adjustments that would invalidate the measurement result;
  - Protected from damage and deterioration during handling, maintenance and storage;
  - Recalled to a defined method when requiring calibration.
- f) In addition, Quality/Calibration assesses and records the validity of previous measuring results when the equipment is found not to conform to requirements.
- g) Quality also takes appropriate action on the equipment and any product affected.
- h) Records of the results of calibration and verification are maintained.
- i) When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed.
- j) This shall be undertaken prior to initial use and reconfirmed as necessary.
- k) These requirements are addressed in OPM 7.6-1, Control of M & M Equipment.

Note: Confirmation of the ability of computer software to satisfy the intended application would typically include its verification and configuration management to maintain its suitability for use.

## 8. MEASUREMENT, ANALYSIS AND IMPROVEMENT

### 8.1 General

- 8.1.1 VerTechs Enterprises, Inc. plans and implements the monitoring, measurement, analysis and improvement processes needed:



- a) To demonstrate conformity of the product requirements.
- b) To ensure conformity of the quality management system.
- c) To continually improve the effectiveness of the quality management system.

8.1.2 This includes determination of applicable methods, including statistical techniques, and the extent of their use.

8.1.2.1 According to the nature of the product and depending on the specified requirements, statistical techniques may be used to support:

- a) Design verification (e.g., reliability, maintainability, safety).
- b) Process control.
  - Selection and inspection of key characteristics.
  - Process capability measurement.
  - Statistical process control.
- c) Inspection – matching sampling rate to the criticality of the product and to the process capability.
- d) Failure mode and effect analysis.

## 8.2 Monitoring and measurement

### 8.2.1 Customer satisfaction, OPM 8.2.1-1

- 8.2.1.1 As one of its measurements of the performance of the quality management system, Quality Assurance monitors information relating to customer perception as to whether VerTechs Enterprises, Inc. has complied with customer requirements.
- 8.2.1.2 The methods for obtaining and using this information are detailed in OPM 8.2.1-1, Customer Satisfaction, and are supplemented by OPM 8.3-1, Control of Nonconformances, and OPM 8.3-1 for Control of Nonconformances.
- 8.2.1.3 Monitoring customer perception can include obtaining input from sources such as customer satisfaction surveys, customer data on delivered product quality, warranty claims, dealer reports.

### 8.2.2 Internal audit, OPM 8.2.2-1

- 8.2.2.1 The Quality Manager ensures that internal audits are conducted at planned intervals to determine whether the quality management system:
  - a) Conforms to the planned arrangements to the requirements of International Standards and to VTE quality management system requirements established by the company.
  - b) Is effectively implemented and maintained.
- 8.2.2.2 The audit program is governed as follows:
  - a) An audit program is planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits.
  - b) A documented procedure has been established to identify and define the responsibilities and requirements for planning and conducting audits, establishing records and reporting those results. These requirements are defined in OPM 8.2.2-1, Internal Audits.
  - c) The choice of auditors to conduct internal audits ensures the objectivity and impartiality of the audit process.
  - d) Auditors are precluded from auditing their own work or work area.
  - e) The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records are defined in OPM 8.2.2-1, Internal Audits.
  - f) Management personnel responsible for the area being audited ensure that actions are taken without undue delay to eliminate detected nonconformities and their causes.
  - g) Follow-up activities include the verification of actions taken and reporting of the verification results.
  - h) Auditors may develop and/or revise check sheets to conduct audits, or use similar methods for conducting internal audits of the Quality Management System.
  - i) An internal audit report shall state if the item being audited meets the requirements of effectiveness,



- suitability, and addresses conclusions and comments.
- j) The internal audit report addresses any contract and/or regulatory authority requirements as applicable.

### 8.2.3 Monitoring and measurement of processes

- a) The Quality Manager applies suitable methods for monitoring and, where applicable, measurement of the quality management system processes.
- b) These methods demonstrate the ability of the processes to achieve planned results.
- c) When planned results are not achieved, correction and corrective actions are taken, as appropriate.
- d) In the event of process non-conformity Senior Management shall:
- Take the appropriate action to correct the nonconforming process.
  - Evaluate whether the process nonconformity has resulted in product nonconformity. Identify and control of the nonconforming product.
- e) These requirements are addressed in OPM 8.3-1, Control of Nonconformances. OPM 8.5.2-1, Corrective and Preventive Action, OPM 8.2.2-1, Internal Audits, and OPM 8.2.3-1, Statistical and Improvement Techniques.

Note: When determining suitable methods, it is advisable that the organization consider the type and extent of monitoring or measurement appropriate to each of its processes, the relation to their impact on the conformity to product requirements and on the effectiveness of the quality management system.

### 8.2.4 Monitoring and measurement of product

- a) The organization monitors and measures the characteristics of the product to verify that product requirements have been met.
- b) This is carried out at appropriate stages of the product realization process in accordance with planned arrangements, (work instructions).
- c) Key characteristics are identified, monitored and controlled.
- d) When sampling inspection is applied to accept product, a sampling plan and AQL requirement shall be defined in the work instructions.
- e) When a sampling plan is applied the instructions must prevent acceptance of known nonconformities.
- f) Customer approval of the sampling plan, work instructions, shall be obtained when required.
- g) All products shall not be processed or shipped to a customer until verification of conformity can be completed by performing monitoring and measurement activities.
- h) Evidence of conformity with the acceptance criteria is maintained. (ref. 7.1, 8.2.4.1 & 8.2.4.2)
- i) Records, shop traveler(s) indicate the person(s) authorizing acceptance and release of product.
- j) Product release and service delivery does not proceed until planned work instructions have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.
- k) These requirements are addressed OPM 7.4.3-1, Verification of product, Receiving, OPM 7.5.1.1-1, Production Process Verification, OPM 7.5.3-2, Acceptance Authority Media, OPM 8.3-1, Control of Nonconformances, and OPM 8.2.3-1, Statistical and Improvement Techniques.

#### 8.2.4.1 Inspection documentation (8.2.4.1)

- a) Measurement requirements for product or services are inspected and documented on an Inspection Conformance Sheet, (ICS) attached to the traveler.
- b) The ICS is part of the traveler (work instructions) and includes the following:
- Criteria for acceptance and/or rejection.
  - The work instructions (ICS) must state where in the sequence the measurement and/or testing operation shall be performed.
  - The ICS is the permanent record of all measurements and results of part realization.
  - The work instruction operation and/or ICS shall state the tooling, inspection instrument or process used for inspection of the characteristic being verified. This shall also include any necessary instructions associated in the use of the tooling and/or inspection instrument.



- c) When specific testing is required by specifications or acceptance test plans, copies of the testing results shall be maintained with the work instructions.
- d) When the customer requires VerTechs Enterprises, Inc. to demonstrate product qualification, Quality Assurance shall maintain and provide objective evidence that the product meets the defined requirements.

#### 8.2.4.2 First Article Inspection (reference also Section 7.5.1.1)

- a) VerTechs Enterprises, Inc. Manufacturing Engineering and Quality Assurance require a first article be performed to inspect, verify and document the representative item(s) meets all requirements. This is performed on all first run production parts, (new parts) as well as any first run on all drawing revision parts.
- b) These first article reports are forwarded to our customers when required by purchase order / contract.

#### 8.3 Control of nonconformances, OPM 8.3-1

- a) Quality shall have a documented procedure to establish and define the controls and related responsibilities/authorities for dealing with nonconforming product.
- b) Quality Assurance ensures that products which do not conform to requirements are identified and controlled to prevent its unintended use or delivery.
- c) The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Operation Procedure Manual.
- d) Quality Assurance defines the responsibility for review and authority for disposition of nonconforming product(s).
- e) Quality Assurance deals with nonconforming product by one or more of the following ways:
  - First by taking any immediate action to ensure no additional nonconformances are generated.
  - By taking action to eliminate the detected nonconformity.
  - By authorizing its use, release or acceptance with the permission of a relevant authority and, where applicable, by the customer.
  - By taking action to preclude its original intended use or application.
- f) Quality Assurance shall prevent dispositions of use-as-is or repair, unless specifically authorized by the customer, if;
  - The product is produced to customer design.
  - The nonconformity results in a departure from the contract requirements.
- g) When product is dispositioned as scrap the material shall be identified and controlled until the product can be rendered unusable.
- h) Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained.
- i) When nonconforming product is corrected, it shall be subject to re-verification to demonstrate conformity to the requirements.
- j) When nonconforming product is detected after delivery or use has started, Quality Assurance shall take action appropriate to the effects or potential effects of the nonconformity.
- k) VerTechs Enterprises, Inc. shall notify our customers of any suspected nonconforming parts affecting reliability or safety that may have been shipped. This shall be conducted in a timely manner. (within 24 hours of detection)
- l) This notification of non-conformity shall include as necessary quantity of parts affected, customer and/or organization part numbers, and dates / invoice number of suspect delivered parts.

#### 8.4 Analysis of data

- a) VerTechs Enterprises, Inc. determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made.
- b) This includes data generated as a result of monitoring and measurement and from other relevant sources.
- c) The analysis of data shall provide information relevant to:





- Customer satisfaction (refer to OPM 8.2.1-1, Customer Satisfaction) (8.2.1).
- Conformity to product requirements (refer to OPM 7.1-1, Planning of Product Realization, OPM 7.5.1.1-1, Production Process Verification. (8.2.4)
- Characteristics and trends of processes and products including opportunities for preventive action (refer to OPM 8.5.2-1, Corrective and Preventive Action). (8.2.3 & 8.2.4)
- Approved Suppliers (refer to OPM 7.4.1-1, Approval and Evaluation of Suppliers) (7.4)

## 8.5 Improvement,

### 8.5.1 Continual improvement, OPM 8.5.1-1

Top management at VerTechs Enterprises, Inc. continually improves the effectiveness of its quality management system through the use of the quality policy, quality goals and objectives, audit results, analysis of data, corrective and preventive actions and management review.

### 8.5.2 Corrective action, OPM 8.5.2-1

- a) The Management Representative, Quality Manager takes action to eliminate the cause of nonconformities in order to prevent their recurrence.
- b) Appropriate corrective actions must be taken to eliminate the root cause of the non-conformity to prevent recurrence.
- c) Corrective actions are appropriate to the effects of the nonconformities encountered.
  - Reviewing customer nonconformities, including customer complaints (refer to OPM 8.3-1, Control of Nonconformances for specific procedures relative to customer complaints).
  - Internal nonconformities are processed as defined in OPM 8.5.2-1, Corrective and Preventative Action.
- d) Determining the root causes of nonconformities,
- e) Evaluating the need for action to ensure that nonconformities do not recur,
- f) Determining and implementing action needed,
- g) Recording the results of actions taken, and
- h) Reviewing corrective action results
- i) Corrective action requirements shall be flowed down to suppliers, when it is determined that the supplier is responsible for the root cause and corrective action.
- j) Requirements for timely and/or effective corrective actions are stated and if not met are escalated to upper management.

### 8.5.3 Preventive action, OPM 8.5.2-1

- a) The Management Representative determines actions to eliminate the causes of potential nonconformities in order to prevent their occurrence.
- b) Preventive actions are appropriate to the effects of potential problems.
- c) OPM 8.5.2-1, Corrective and Preventive Action, addresses the requirements for:
  - Determining potential nonconformities and their root causes,
  - Evaluating the need for action to prevent occurrence of nonconformities,
  - Determining and implementing action needed,
  - Recording the results of the action taken, and
  - Reviewing the effectiveness of the preventive action taken.

## 9. QUALIFICATION DOCUMENTS

### 9.1 Scope and Statement of Authority

VerTechs Enterprises, Inc. recognizes its responsibilities as a manufacturer and processor of precision tooling, fixtures, patented honeycomb cores and the highest quality light weight structural components for the aerospace industry. It is our commitment to manufacture products that fully comply with all contractual provisions and regulatory authority requirements. To meet these responsibilities VerTechs Enterprises, Inc. has developed a comprehensive Quality Management System. This system establishes controls throughout the entire manufacturing processing cycle from proposals and quotes to



product delivery. It also assures meeting company quality objectives and minimizes the possibility of compromises, which could affect product quality, safety and reliability.

The VerTechs Enterprises, Inc. Quality Manual and supporting documents was prepared to provide assistance to all departments in understanding and implementing the quality assurance activities associated with their functions. The Quality Manual is a narrative description of the quality system, designed to provide all our employees, as well as our customers, with an overview and insight into the quality procedures that govern VerTechs Enterprises, Inc.

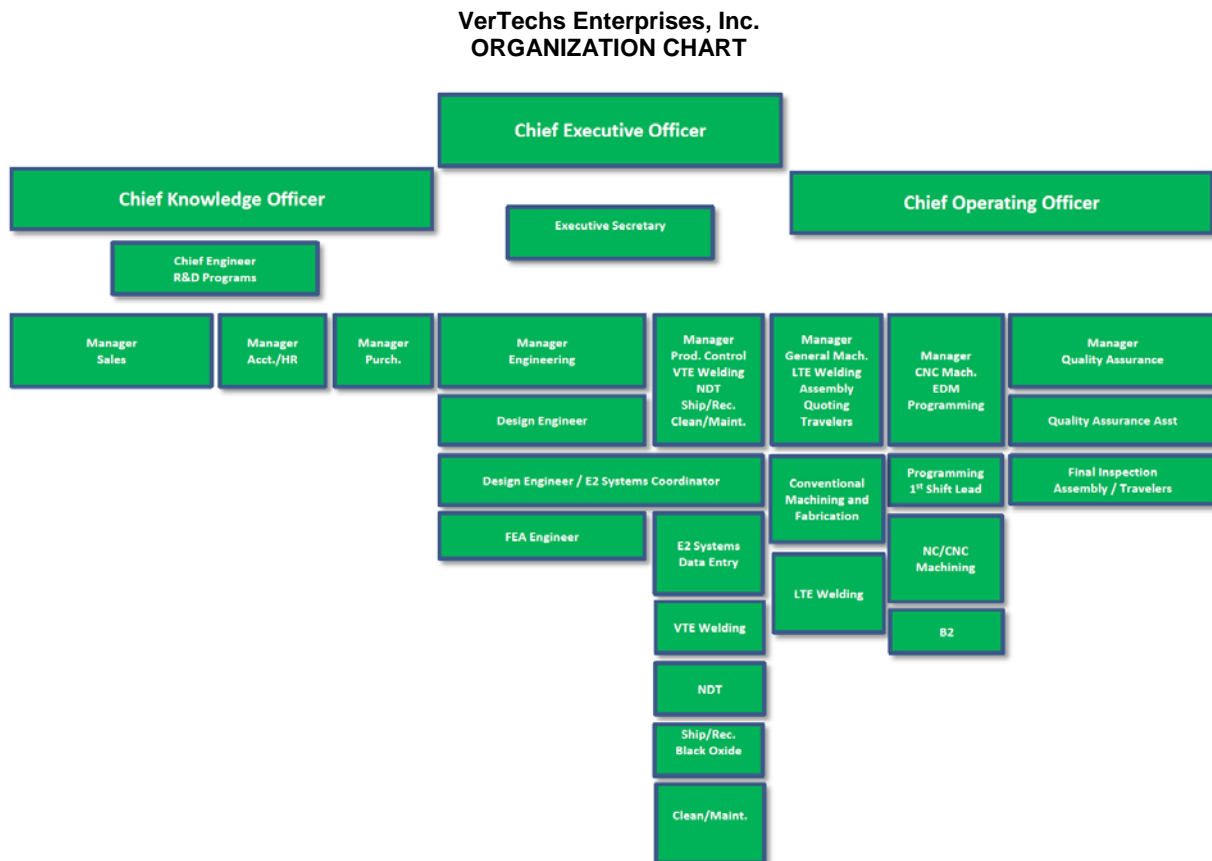
The Quality Manual is an instruction document prescribing specific actions and assigning responsibilities for those actions. Compliance with this manual is mandatory for all personnel.

The Quality Manager for VerTechs Enterprises, Inc. has the responsibility and authority for assuring full implementation of the complete Quality Management System, including control of the Quality Manual and the issuance of the supporting operation procedures manuals. The Quality Manager is the VerTechs Enterprises, Inc. contact representative.

Issuance of the Quality Manual is an uncontrolled document and can be issued through our web page, ([www.vertechsusa.com](http://www.vertechsusa.com)) & ([www.luchner.com](http://www.luchner.com)). Revisions to his manual will be made as necessary to keep it current with changing customer and regulatory authority requirements. Customer representatives shall be advised of any major changes to the Quality Manual and/or it key personnel. Suggestions for the improvement of this manual are requested from its users.

This statement applies to all divisions of VerTechs Enterprises, Inc.

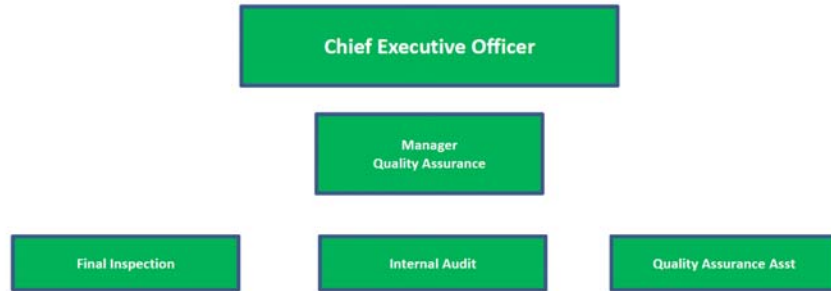
9.2 Company Organization Chart





9.3 Quality Organization Chart

**VTE QUALITY ORGANIZATION CHART**



**REVISION RECORD**

<u>REV</u>	<u>DD</u>	<u>MMM</u>	<u>YYYY</u>	<u>EVENT DESCRIPTION</u>
N/C	18	Jun	2007	Original Issue
A	16	Sep	2009	Update to ISO 9001:2008 Standard.
B	04	Feb	2010	Revised exclusions, removed (Except 7.3.7 from the exclusion paragraph).
C	02	Nov	2011	Added: Luchner Logo, Removed: procedure revs and years & OPM appendix, Revised: company address and OPM numbers.
D	12	Mar	2012	Added: 7.1.2 Risk Management
E	18	Jan	2012	Revised Scope. Revised 3.1 Flowchart, para 4.2.1, para 5.5.1 Responsibilities, and para 5.5.2. Revised Org charts. Added section 7.5.1.1. Renumbered as required to correct auto-number errors.  * Revised procedure format 07/19/2014. Content is unchanged. Revision stays as "E".
F	18	SEP	2014	Revised the QMS Process Map and added paragraph 3.1.1.