



**VERTEX**  
MANUFACTURING  
A PRINTERPREZZ COMPANY

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# Supplier Policy Manual

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## Revision History

Revision	Change Summary
01MR21	Original Issue

## 1. Company Background

Vertex Manufacturing is in Cincinnati, Ohio resided as a private company providing complex precision machining and Additive Manufacturing aerospace, medical device, and commercial products.

Quality, Innovation and Value have long been the hallmarks of Vertex Manufacturing, LLC. (Vertex) since it is founding in 2020. Strategically located in Cincinnati, Ohio., Vertex's can respond rapidly to client requests.

We offer a broad range of product manufacturing and program development services that include:

- Pre-Production and Production CNC Machining
- Additive Manufacturing (AM) technologies

Vertex has consistently invested heavily in the most talented professionals, state-of-the-art equipment, leading-edge technologies, leading-edge suppliers, and integrated systems so we maintain our leadership position within the industries we serve. It is our mission to become the most innovative, comprehensive, collaborative, and respected product development company in North America. We believe that we are well on our way to accomplishing this goal and welcome the opportunity to show you how we can bring exceptional value to your projects.

## 2. Vertex Manufacturing Quality Policy

**Vertex is committed to providing world class quality products and manufacturing solutions. Our mission is to sustain stakeholder satisfaction by achieving Key Results, exceeding customer requirements, and driving continuous improvement throughout our organization.**

## 3. Purpose

The intent of this document is to define the Procurement and Quality requirements necessary to ensure a successful partnership between Vertex Manufacturing and our suppliers. This manual document the required quality standards for products and services purchased from suppliers, and outlines Vertex Manufacturing's overall expectations.

- Suppliers must be capable of providing defect-free products and services meeting design intent and on-time delivery.
- All proposed material or process changes must be communicated in writing to Vertex Manufacturing Purchasing representative.
- All proposed manufacturing location changes must be communicated in writing to the appropriate Purchasing representative prior to the move.
- All design changes must be communicated to the appropriate Purchasing representative in advance.
- Suppliers must have a full understanding and compliance with all applicable federal, state, and local regulations.
- Timely delivery or advance notification. This includes meeting Vertex Manufacturing quality and delivery requirements.

## 4. Scope

This document will provide guidance to the supply base, on activities relating to the performance of the Purchase Order requirements. This manual is applicable to all existing suppliers and potential new suppliers of purchased production material or services to Vertex Manufacturing. It outlines the process for initially becoming an Approved supplier to Vertex Manufacturing, describes the tools for continuous improvement necessary to become and remain a “Preferred” supplier, as well as the ongoing performance monitoring system. We team with suppliers who have made or demonstrated a commitment to continuous improvement in their product quality. It is our intent to develop desirable and mutually beneficial long-term relationships with these suppliers. These suppliers can enhance their own future by supplying zero-defect products, timely delivered, competitively priced, in a reliable supply chain environment.

## 5. Definitions:

- **Counterfeit** – A part made or altered to imitate or resemble an “approved part” without authority or right, and with the intent to mislead or defraud by passing as original or genuine.
- **Suspect Counterfeit** – Parts that have documentation, appearance, performance, material, or other characteristics may have been knowingly misrepresented by the vendor, supplier, distributor, or manufacturer.
- **GIDEP** – Government Industry Data Exchange Program, a database of suspect counterfeit parts discovered by other customers. Also lists potential suppliers associated with the suspect counterfeit parts.
- **Nonconformance** – The failure of a characteristic to conform to the requirements specified in the drawings, specifications, or other approved product description.
- **Rework** – A procedure applied to a nonconformance that will eliminate it and result in a characteristic that conforms completely to the drawings, specifications, or contract requirements.
- **Scrap** – Nonconforming material that is not useable for its intended purpose and which cannot be economically reworked or repaired in an acceptable manner.
- **Return to Vendor** – Return of supplied product found to be discrepant for subsequent rework or replacement.
- **Repair** – A procedure which reduces, but does not eliminate a nonconformance, and which has been reviewed and concurred in by the MRB and approved for use by the customer, when required. The purpose of repair is to reduce the effect of the nonconformance. Repair is distinguished from rework in that the characteristic after repair still does not completely conform to the applicable drawings, specifications, or contract requirements.
- **Use as Is** – A disposition of material with one or more minor nonconformities determined to be usable for its intended purpose in its existing condition.
- **Unlimited Supplier Status** – A supplier with an overall evaluation score of 90% or higher and no quality or delivery issues in the past 12 months.
- **Limited Supplier Status** – A supplier with an overall evaluation score of 75% or higher and no quality or delivery issues in the past 6 months.
- **Restricted Supplier Status** – A supplier with an overall evaluation score below 75% and multiple quality of delivery issues in the past 12 months.
- **Approved Supplier** – Any supplier providing goods or services not going into or used on product.
- **Preferred Supplier** – Any supplier providing goods or services going into or used on product.

## 6. Supplier Code

### 6.1. Ethics Policy

Vertex Manufacturing employees treat suppliers, customers, and others seeking to do business with our company with dignity and respect and in a manner that excludes considerations of personal advantage. Vertex Manufacturing provides standards for ethical business conduct to our Supply Management employees that they use as guidelines in managing their relationships with present or potential suppliers. Employees and representatives of the company shall avoid any conflict of interest that might interfere with or adversely influence their obligation to Vertex Manufacturing. Our suppliers are expected to give their full cooperation in observance of this policy. Our ethics policy is available upon request from the appropriate Purchasing/Supply Management representative.

### 6.2. Third Party Anti-Corruption

Vertex Manufacturing and Suppliers are committed to conducting operations ethically and in compliance with the laws of the United States and any other country in which they do business. This includes laws against commercial bribery, payments to government officials and money laundering, and compliance with local tax laws, import/export regulations, and laws governing the payment of applicable customs and duties.

### 6.3. Child Labor and Forced Labor

A supplier will not intentionally source materials from supply chains associated with human trafficking and will take reasonable efforts to assure that its own suppliers comply with this requirement. Supplier must comply with all applicable local laws with respect to child labor. In the absence of such laws or in the event existing laws permit the hiring of a person younger than 15 years of age, the minimum age for employment or work by Supplier will be 15 years of age or the age for completing compulsory education in that country, whichever is higher. Supplier must not use forced, bonded, involuntary, prison or indentured labor.

### 6.4. Counterfeit Parts Detection and Mitigation

These representations and warranties shall apply regardless of the source of such goods or materials and irrespective of whether (Vertex Manufacturing) has approved such source in advance.

#### 6.4.1. Seller represents and warrants each of the following to Vertex Manufacturing:

- That only new and Authentic materials are used in goods delivered to Vertex Manufacturing.
- Parts shall not be used or reclaimed and misrepresented as new
- That the goods or services delivered or sold to Vertex Manufacturing contain no Counterfeit items.
- Purchased materials must have a certification (Certificate of Conformance) from the supplier and that certification shall be delivered with each lot/ shipment; hardcopy or Electronic copy within 24 business hours of receipt at Vertex Manufacturing.

- Material supplied by approved distributors must have evidence of supply chain traceability (chain of custody) back to the original equipment manufacturer (OEM). OEM certifications must be available upon request.
- 6.4.2. Suppliers that provide parts or assemblies for deliverable products shall have a counterfeit parts program plan to ensure it does not receive counterfeit parts into inventory, use them in manufacturing, or inadvertently sell them to other parties.
- 6.4.3. Raw material may be purchased through approved distributors if evidence of supply chain traceability (chain of custody) back to the mill is available. The supplier shall maintain the original mill certification and make available upon request
- 6.4.4. Suppliers that deliver next higher assemblies shall flow this requirement down to all their sub-tier suppliers to prevent the inadvertent use of counterfeit parts and materials.
- 6.4.5. If evidence of supply chain traceability to the OEM is not available, the supplier shall verify authenticity prior to shipment. The supplier may use an independent inspection/ test service provider to verify authenticity.
- 6.4.6. Seller agrees to provide Vertex Manufacturing with notice in writing prior to acceptance of an order if Seller is not an original or franchised source for any item listed on such order.
- 6.4.7. Supplier agrees that by accepting a purchase order from Vertex Manufacturing that they are accepting the terms and conditions of the Vertex Manufacturing Counterfeit Parts Policy.
- 6.4.8. Vertex Manufacturing shall have the right to inspect and test all goods sold or otherwise provided to Vertex Manufacturing, always and places before or after acceptance.
- 6.4.9. Seller always agrees to maintain, and make available to Vertex Manufacturing upon request, a documented system, policy, procedure, or other documented approach that is intended to prevent counterfeit parts from reaching Vertex Manufacturing. At a minimum, such approach must require prior written approval from Vertex Manufacturing prior to the procurement of any goods intended for resale to Vertex Manufacturing from a source other than the original manufacturer or such manufacturer's authorized distributors.
- 6.4.10. Seller agrees, upon request for up to 10 years from Vertex Manufacturing's receipt of goods from Seller, to promptly provide Vertex Manufacturing with documentation authenticating traceability of all goods sold to Vertex Manufacturing back to the applicable original manufacturer.
- 6.4.11. If Seller sells or otherwise furnishes Vertex Manufacturing with any Counterfeit Item, Vertex Manufacturing shall have the right to impound such items, and Seller shall promptly replace such items with items acceptable to Vertex Manufacturing. In such case, Seller shall be liable to Vertex Manufacturing for all costs relating to impoundment, removal, replacement, and proof of physical destruction. Vertex Manufacturing may withhold payment for any Counterfeit Items and will be obligated to turn such items over to governmental authorities for investigation.
- 6.4.12. If suspect/counterfeit parts are furnished under a Vertex Manufacturing purchase order and are found in any of the goods delivered hereunder, such items will be impounded by Buyer.
- 6.4.13. The Seller shall promptly replace such suspect/counterfeit parts with parts acceptable to the Buyer and the Seller shall be liable for all costs relating to the removal and replacement of said parts as specified in the purchase order requirements or Distributor's insurance policies.
- 6.4.14. Seller acknowledges that any willful act to falsify, conceal or alter a material fact, or any false, fraudulent, or fictitious statement or representation in connection with goods or services provided to Vertex Manufacturing may be punishable in accordance with applicable law and, in some circumstances, could result in criminal penalties.
- 6.4.15. Each of the rights and remedies reserved by Vertex Manufacturing in this Policy shall be cumulative and additional to any other or further remedies provided in law or equity or in any contract between Seller and Vertex Manufacturing. A waiver of a breach of any provision hereof shall not constitute a waiver of any other breach.

6.4.16. Seller agrees to include the requirements of this Policy in any subcontract at any tier for the performance of the document incorporating this Policy.

## **6.5. Suspected Counterfeit Part Reporting**

### **6.5.1. GIDEP Reporting:**

Policy members are asked to identify the supplier of the part or material when reporting a suspect counterfeit in the database.

The category of supplier is to be provided: OEM, Aftermarket, Manufacturer, Independent Distributor, Broker, and Broker/Distributor.

Report must include detailed description of the problem, as well as evidence that supports the conclusion, e.g., detailed reports, photos, third party testing.

### **6.5.2. Counterfeit Part Disposition**

To eliminate the potential risk of the counterfeit parts being reintroduced into the supply chain, Vertex Manufacturing will not return any suspected counterfeit parts to the supplier under investigation.

Vertex Manufacturing may withhold payment of the suspected counterfeit material until the investigation is closed and the parts are deemed acceptable.

In the event counterfeit parts are detected and confirmed, Vertex Manufacturing will not be responsible to uphold any financial obligations previously stated in purchase orders or other written correspondence. All agreements in writing will be void and cancelled.

## **6.6. Compliance with Laws and Regulations**

Vertex Manufacturing does business throughout the world. Because of Vertex Manufacturing's global presence, a Supplier must comply with all laws and regulations applicable to its business in the countries where it does business, including all laws and regulations relating to each subject matter below. The Supplier must recognize that Vertex Manufacturing's obligations and requirements extend to all countries where Vertex Manufacturing does business, and that in some cases, Vertex Manufacturing - and its suppliers - are required to conduct business in accordance with the laws of other countries in which Vertex Manufacturing operates.

## **6.7. Wages and Working Hours**

Supplier must comply with all applicable local laws with respect to wage and hour laws, including those relating to minimum wages, overtime hours, and other elements of compensation, and will provide all legally mandated benefits. Supplier will not require employees to work more than the maximum number of hours permitted under applicable laws.

## **6.8. Freedom of Association**

Supplier must respect workers' rights to associate freely, in compliance with existing local laws and without intimidation, reprisal or harassment. Workers' rights under local laws to join labor unions, seek representation and/or join worker's councils should be acknowledged by Supplier.

## **6.9. Discrimination**

Supplier must not discriminate against any worker in its hiring and employment practices based on race, color, religion, disability, national origin, gender, sexual orientation, marital status, age, or other characteristic protected by local law. Supplier must not discriminate against any worker based on political affiliation or union membership in its hiring and employment practices.

Supplier will not require a pregnancy test prior to employment or otherwise require workers or potential workers to undergo medical tests that could be used in a discriminatory way, except where required by applicable laws, or were prudent for workplace safety.

## **6.10. Fair Treatment**

Supplier will treat its workers with dignity and respect. Supplier will maintain a workplace free of harassment and discrimination and shall not threaten workers or subject them to harsh or inhumane treatment, including sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse.

## **6.11. Health and Safety**

Supplier will conduct its operations in compliance with applicable health and safety laws and regulations and provide its workers with a safe and healthy work environment. Where Supplier also provides accommodations for its workers, such accommodations shall be appropriate for its location and be clean, safe and, at a minimum, meet the basic needs of its workers.

## **6.12. Environment**

Supplier will comply with all applicable environmental laws, regulations and standards and minimize any adverse impact on the environment. Supplier must endeavor to conserve natural resources and energy and reduce or eliminate waste and the use of hazardous substances.

## **6.13. Fair Dealing and Competition Laws**

Supplier will not engage in collusive bidding, price fixing, price discrimination or other unfair trade practices in violation of applicable antitrust or competition laws. Supplier will uphold fair business standards in advertising, sales, and competition.

## **6.14. Protection of Intellectual Property**

Supplier must respect intellectual property rights, including patents, trademarks, copyrights and process designs, and safeguard Vertex Manufacturing's confidential and proprietary information. Any transfer or sharing of technology or know-how must be done in a manner that protects intellectual property rights and follows local laws, including export laws, concerning data privacy and security.

## **6.15. Data Privacy and Security**

Supplier will comply with all local laws concerning data security and privacy and will protect and safeguard data provided by Vertex Manufacturing, which may include private and sensitive personal information. Any transfer or sharing of data must be done in a manner that protects such information from inadvertent or unauthorized disclosure and any disclosure must follow local laws.

## **6.16. Improper Payments**

Supplier is prohibited from engaging in any corruption, extortion, or embezzlement, in any form. Supplier must comply with all applicable anti-corruption laws and regulations of the countries in which they operate, the U.S. Foreign Corrupt Practices Act, the OECD Anti-Bribery Convention, and any international anti-corruption conventions. Supplier will not offer or accept bribes or employ other means to obtain an undue or improper advantage. Bribes, kickbacks, facilitating payments and similar payments to government officials or to Vertex Manufacturing employees or agents acting on Vertex Manufacturing's behalf are prohibited. Vertex Manufacturing employees are discouraged from accepting gifts or entertainment from suppliers, including gifts or entertainment of nominal value. When business meals are appropriate to further business relationships, those meals may not be extravagant in nature.

## **6.17. Export Control**

Supplier shall comply with all export control laws and regulations and any amendments thereto, including the International Traffic in Arms Regulations, 22 C.F.R. Parts 120-130 (ITAR) and the Export Administration Regulations, 15 C.F.R. Parts 730-774 (EAR) (collectively, "Export Control Laws"). Supplier acknowledges that any information, software, or hardware received from Purchaser may be subject to Export Control Laws. All transactions hereunder shall always be subject to and conditioned upon Supplier's compliance with all applicable Export Control Laws. Supplier agrees that it shall not, except as any applicable laws and regulations may expressly permit, export out of the U.S., or make any disposition by way of transshipment, re-export,



diversion or otherwise, of any information, software, or hardware, or the direct product thereof, furnished by Purchaser, or developed by Supplier for Purchaser, in connection with this Purchase Order. Supplier shall comply with all Export Control Laws before providing or granting access to any such information, software, or hardware to individuals who are not U.S. citizens or permanent resident aliens, whether in or outside of the United States.

## **6.18. Monitoring and Record Keeping**

Supplier must maintain all documentation necessary to demonstrate its compliance with this Supplier Code and provide Vertex Manufacturing with access to those documents upon Vertex Manufacturing's request for review. Neither Vertex Manufacturing nor any of its affiliates or authorized agents assumes any obligation or duty to monitor or ensure compliance with this Supplier Code. Supplier is solely responsible for compliance with this Supplier Code by its officers, directors, managers, employees, representatives, and agents.

## **6.19. Violation of This Supplier Code**

If a Supplier violates any of the requirements contained in this Supplier Code, Vertex Manufacturing may immediately terminate its supply relationship with that Supplier.

## **7. Purchase Orders**

The supplier is responsible for reviewing and meeting all the Vertex Manufacturing purchase order requirements, specifically:

- Purchase order number.
- Purchase item part number.
- Latest revision level of the drawing if applicable to item.
- The order quantity and accuracy of price.
- Special notes to be followed.
- Required delivery date.
- Procurement Provisions
- Terms and Conditions

If the supplier cannot meet the requirements, the supplier must notify Vertex Manufacturing Purchasing representative prior to acceptance.

Once the Purchase Order has been reviewed, the supplier must return confirmation to the appropriate purchasing representative for acknowledgement.

### **7.1. Procurement Representative's Authority and Responsibilities**

Vertex Manufacturing's Purchasing department is responsible for all aspects of procurement, logistics and delivery. The choice of suppliers in any of these areas may be the result of investigation and deliberation amongst various departments within Vertex Manufacturing, but price negotiation and commitment to purchase authority rest solely with the appropriate procurement member of Vertex Manufacturing. Only Purchasing representatives may commit Vertex Manufacturing to a purchase contract. Properly approved purchase orders are required to commit the company for items or services. Consistent with our corporate values, Vertex Manufacturing will treat all its suppliers and their representatives fairly and impartially.

### **7.2. Delivery Requirements**

Suppliers are expected to maintain deliveries in accordance with accepted Vertex Manufacturing purchasing releases. Delivery timing requirements are indicated on the purchase order releases. On-time delivery is measured by the

number of shipments received in a timely manner per the Vertex Manufacturing release requirements for parts on order and then, calculated as a percentage as well as average days late. Continued delinquent deliveries require immediate improvement activity. All costs incurred due to delivery problems may become the responsibility of the supplier. On-time delivery is based on the initial scheduled delivery date confirmed by the supplier but allows the shipment to be received up to 3 business days early and zero (0) days late to be considered delivered on time. Earlier deliveries may only be accepted with advanced approval from purchasing. Vertex Manufacturing shall expect 100% on-time delivery from all suppliers.

**Shipments more than the purchase contract quantity must have prior written approval from the appropriate Purchasing representative.**

### **7.3. Purchase Order Changes**

When an engineering drawing or specification has been revised, Vertex Manufacturing Purchasing representative will send the supplier a Supplier Engineering Change Notification form along with the latest Engineering Change Order. The supplier should review the Drawing/document to accept or decline the requested changes. Vertex Manufacturing's suppliers are required to answer the stated questions on the Supplier Engineering Change Notification form and return to Vertex Manufacturing's purchasing department within three (3) working days.

### **7.4. Packaging, Handling, Storage and Preservation**

All products shall be packed, packaged, marked, and otherwise prepared for shipment in a manner which is (1) in accordance with good commercial practices unless otherwise specified in a particular manner; (2) acceptable to common carriers for shipment at the lowest rate that could include ocean shipment for the suppliers; and (3) adequate to insure safe arrival of the material. The label and character size should be legible.

The supplier shall mark each container, rack, box, or pallet with necessary lifting, handling, and shipping information. Suppliers are held responsible to ensure packaging is sufficient to protect material from shipping damage (nicks, dings, bends, scratches, etc.). The supplier shall also assure that all packaged items are permanently and legibly identified. Re-use Vertex packaging materials for returning product back to Vertex when possible.

Identification requirements may include any or all the following as specified by Vertex Manufacturing documentation:

- Bar codes must be Human Readable.
- Part identification, complete Vertex Manufacturing part number and revision level
- Name of manufacturer.
- Lot Number and/or Date code (date of manufacture).
- Vertex Manufacturing's purchase order number.
- Identification and Quantity of parts per carton
- Certificate of Origin- where applicable.
- An itemized package sheet must accompany each shipment.

### **7.5. Shelf-Life Material**

Supplier shall identify item(s) and/or package(s) container(s) of shelf-life material with the manufacture date or the expiration date along with special storage and handling conditions, in addition to the normal identification requirements of manufacturer name, part number, revision type, size, quantity, etc. When the item/material/product is age control sensitive and requires shelf-life certification to accompany each shipment. If not otherwise specified, minimum 80% shelf life must be remaining upon receipt at Vertex Manufacturing.

### **7.6. Return Material Request**

When material is to be returned to the supplier, Vertex Manufacturing must receive authorization (RMA - Return Material Authorization) from the supplier within two (2) business days from the date of request. If return authorization has not been received within seven (7) business days, Vertex Manufacturing may return the material to the supplier and debit their account.

## **8. Supplier Selection:**

Vertex Manufacturing’s Supplier Evaluation Team, consisting of a representative from Purchasing and Quality Assurance will evaluate all new suppliers. All new potential suppliers may be required to submit any or all the following items:

- Vertex Manufacturing Supplier Quality System Survey
- Quality System and/or Industry standards certifications
- Mutual Non-Disclosure Agreement

After the above information is received, Vertex Manufacturing’s Supplier Evaluation Team reviews all the information and makes one or some of the following determinations:

- Add the supplier to the Preferred Supplier List as Unlimited or Limited status approval.
- Schedule an on-site survey/visit (if required).
- Requests additional information from the supplier, as necessary.
- Eliminate the supplier from further consideration.

Once a supplier is selected, the appropriate Purchasing and Quality Assurance team members will work with the supplier to facilitate the specific qualification requirements for materials, components, or services. Supplier selection for a new part is based upon the supplier’s stated ability to meet Vertex Manufacturing specifications, as well as successful completion of the requirements defined above. Continued business is awarded to suppliers based on their quality, on-time delivery, cost, technological expertise, and customer service record.

Non-fulfilment of purchasing requirements shall be addressed with the supplier proportionate to the risk associated with the purchased product and compliance with applicable regulatory requirements.

## 9. Supplier Performance Rating and Performance Monitoring System

### 9.1. Overall Rating:

The Vertex Manufacturing Supplier Evaluation Team, consisting of Purchasing, Quality and Process Engineering representatives, gathers the appropriate data to evaluate Preferred Suppliers on a point system that is divided into three (3) areas of focus listed below:

- |                                    |     |
|------------------------------------|-----|
| • Quality System/Performance       | 50% |
| • Delivery/Logistics               | 25% |
| • Customer Service / Affordability | 25% |

All Vertex Manufacturing suppliers are classified under one of four categories based upon the level of criticality of each supplier or product as related to product/services provided to Vertex Manufacturing.

Evaluation results will be used by the Supplier Evaluation Team to determine the supplier’s Performance Rating. These rating categories are as follows:

	<u>Overall Rating</u>	
• Approved Supplier:	No supplier performance is measured or monitored.	None
• Preferred Supplier:	Very good supplier, meeting, or exceeding expectations	85 and Above
• Limited (Preferred) Supplier:	Improvement needed to meet expectations	60-85
• Restricted (Preferred) Supplier:	Unsatisfactory performance clearly failing to meet expectations	below 60

At a minimum, Vertex Manufacturing will issue Supplier Performance Reports annually, depending on performance and status it could be more frequent. Suppliers are responsible for analysis of the report and self led improvements. Vertex Manufacturing may require a corrective action/improvement plan from suppliers whose performance is inadequate. If required, review meetings may be held between Vertex Manufacturing and the supplier to review past performance and achievements to develop or establish future targets and objectives, as well as continuous improvement strategies.

## 9.2. Quality Performance Measurement

Quality Performance will be scored based on Defects Per Million (DPM). This is calculated by the number of parts received in each time divided by the number of rejects in the same period multiplied by a million. This calculation describes how many parts would be defective if a million were received. An example, if 1,000 parts were received in the first quarter and 10 parts were rejected the DPM would be 10,000.

## 9.3. Delivery Performance Measurement

On-Time Delivery Performance will be scored based on the total quantity received on time, +3 business days -0 days, to the purchase contract due date. Due date is the date the material is expected on Vertex Manufacturing's dock.

## 9.4. Scoring Standards

### 9.4.1. Quality Performance

Score	Requirement
50	4,000 Defects Per Million or less
40	12,000 Defects Per Million or less
30	20,000 Defects Per Million or less
20	28,000 Defects Per Million or less
10	36,000 Defects Per Million or less
0	Greater than 48,000 Defects Parts Million

### 9.4.2. Delivery Performance

Score	Requirement
25	98% on time, or better
20	95% - 97.9% on time
15	90% - 94.9% on time
10	85% - 89.9% on time
5	less than 85% on time

### 9.4.3. Customer Satisfaction

Score	Requirement
25	No concerns or recommendations for improvement
20	No concerns, some evidence of pro-activeness and flexibility

15	No concerns raised; however, supplier lacks pro-activeness and innovative ideas
10	Some minor concerns raised, but generally the supplier has resolved these issues with minimal support.
5	The supplier required constant assistance and lacks the resource/ability to resolve issues and drive improvement

**Customer Service Considerations Include:**

- Pricing/Competitiveness
- Responsiveness /Flexibility
- Communication/Technical Support
- Capacity
- Investments
- Improvement Plans
- Communication/Liaison
- Total Dollars Purchased

**10. Quality Management System Requirements:**

Suppliers shall implement and maintain a Quality Management System (QMS), which complies with the applicable Quality System standard specified in Table I.

Suppliers shall be compliant to ISO9001, ISO13485, or AS9100 current revision. A third-party certification to ISO9001, ISO13485 or AS9100 current revision is required for Level 1 through Level 3 suppliers. Third-party certifications by accredited certification bodies will only be recognized.

Suppliers shall forward a copy of their certification to Vertex Manufacturing buyer. Any change to the certification such as changes in scope, update, withdrawal, or disapproval shall be forwarded to the Vertex Manufacturing Buyer immediately. Any change to supplier name, ownership or facility location is subject to reevaluation by Vertex Manufacturing and the supplier shall notify their buyer in writing.

**Personnel Note:**

Supplier is to ensure their personnel are aware of their contributions to product of service conformity, contribution to product safety, and the importance of ethical behavior.

Table I

Quality System Level	Supplier Classification	Applicable Quality System	Supplier Description	Requirement
Level 1	Preferred	AS9100, ISO13485, ISO9001,	Build to Print Manufacturer	Third Party Certified/Registered
Level 2	Preferred	AS9100, ISO13485, ISO9001, ISO 10012-1, ISO 17025 or NADCAP (if applicable)	Processor/Services	Third Party Certified/Registered
Level 3	Preferred	ISO9001, Supplier Quality System	Commercial Items	Third Party Certified/Registered or Compliant
Level 4	Approved	None required	Non-Product related goods and services	None

## **10.1. Calibrations**

The Supplier shall perform all inspections and tests using calibrated equipment. For calibration service providers or test laboratories, accreditation to ISO 17025 is preferred. Materials used to meet applicable drawing requirements and procurement documents shall not be excluded.

## **10.2. Identification and Marking**

The Supplier shall identify all items, parts, components, sub-assemblies and/or assemblies with appropriate part number and revision level as noted on the part drawing or as otherwise specified by the Vertex Purchase Order.

## **10.3. Traceability**

Each manufacturer's lot within each shipment must be segregated and identified to include quantity and lot number on each Certificate of Conformance. There must be a clear link(s) (i.e., heat #, Lot number), that ties the entire certification package together. This includes process certifications performed by sub tier suppliers. Distributors shall maintain clear traceability to the original manufacturer for each lot in a shipment

## **10.4. Right to Visit Supplier**

Representatives and/or customers of Vertex shall have the right to visit the Seller's premises at all reasonable times to inspect the goods/services and to monitor the progress of the work, but such activities shall not constitute acceptance. This inspection will be performed in such a manner as not to unduly delay the work. Final acceptance or rejection of the goods/services shall be made as promptly as practical after delivery, except as otherwise provided in this purchase order.

## **10.5. Software**

Any software used for qualification or acceptance of hardware or software deliverables, including firmware, shall have a system for control including procedures, records, and revisions available for review any time upon request from Vertex.

All software shall be backed up in a supportable format by the Supplier and shall be retained for a time no less than 7 years.

## **10.6. Special Processes**

Certification for special processes, such as heat-treating, chemical processing, plating, etc., shall be submitted with each shipment. Specification(s) and revision level(s) used to produce the order are required. If the shipment contains multiple special processed lots within each manufactured lot, each processed lot must be segregated and identified to maintain complete traceability in each shipment. (Example: When a manufacturing work order is split into two separate heat-treated lots, each heat-treated lot shall be segregated and identified to maintain traceability in the shipment).

## **10.7. Adverse Events and Advisory Notices**

If applicable regulatory requirements require notifications of complaints that meet specified reporting criteria of adverse events or issuance of advisory notices the supplier shall provide notification to their Vertex Manufacturing Purchasing representative and the appropriate regulatory authorities. The supplier shall maintain records of such activities.

## **10.8. Foreign Object Debris (FOD) Prevention and Part Cleanliness**

The Supplier shall conduct production processes appropriate to prevent, detect, and remove all FOD from product(s) during manufacture and provide parts clean and free of all FOD prior to shipment to Vertex. FOD contamination can be cause for rejection of material. If processes are required in a cleanroom environment, cleanroom must be maintained to the required class in accordance with ISO 14644.

## **10.9. Nonconforming Material**

Nonconforming material shall be identified, documented, segregated (when practical) and evaluated for the appropriate disposition to prevent unintended use. Suppliers are not granted Independent MRB Authority.

### **10.9.1. Disposition Authority**

The supplier's disposition authority is limited to rework scrap and return to vendor. All other disposition, such as Repair and "Use as Is" dispositions cannot be used without written approval from the Vertex Manufacturing Quality Department.

### **10.9.2. Notification of Nonconforming Material**

The supplier shall notify Vertex Manufacturing in a timely manner of any nonconforming material that may affect already delivered product. Notification to the Buyer and Quality shall include a clear description of the discrepancy, part number, serial number (if applicable), manufacture date, quantities, and purchase order. Suppliers with design authority shall provide a technical assessment and recommended disposition.

### **10.9.3. In-house repair or rework**

In some instances, Vertex Manufacturing may decide to rework, or repair supplied product, due to non-adherence to specifications and only through the fault of the vendor; in which case Vertex Manufacturing will contact the supplier to discuss the costs of the rework and potential chargeback to the supplier.

## **10.10. Disclosures/Notifications**

The supplier's system shall provide for timely reporting of nonconformities that may affect already delivered product. Notification shall be submitted to the buyer on company letterhead and include a clear description of the discrepancy. The notification shall identify all suspect parts and material affected by the discrepancy (part numbers, purchase order numbers, shipment dates, and quantities). Information related to the Root Cause / Corrective Actions initiated to address the defective condition shall also be included.

## **10.11. Rework/Repair/Replacement/Modified Items**

Supplier's Certification of Conformance and/or packing sheet document shall reflect the following requirements for rework, replacement, repair, or modification items returned to supplier or including work performed by supplier at Vertex Manufacturing's facility.

The item(s) have been reworked, repaired, replaced, or modified (as applicable), in accordance with respective nonconformance documents or Purchase Order.

The item(s) meet the requirements of the prints, project requirements and/or engineering documents.

The original configuration and qualification status of the item(s) remains in effect (as applicable).

All applicable nonconformance document numbers or other references to ensure traceability.

Discrepant material shall not be shipped to Vertex Manufacturing without prior approval from Vertex Manufacturing Supplier Quality representative.

## **10.12. Alternate/Substitute Materials**

End Items and/or components that do not conform to the Bill of Material or alternate Bill of Material associated with the contract (PO) will not be accepted without prior written consent from Vertex Manufacturing.

## **10.13.Change Control**

The supplier shall not, without prior written approval from Vertex Manufacturing, make any change in purchased product that could affect form, fit, function or other specified requirements of the product being purchased. The supplier shall contact the Vertex Purchasing representative with potential change requests prior to implementing any changes to purchase product requirements.

## **10.14.Vertex Manufacturing Source Inspection**

When source inspection is required on the purchase contract, the supplier must notify Vertex Manufacturing Quality Representative within seven business days in advance of need to schedule the source inspection. Vertex Manufacturing will provide an inspector to the supplier facility for the inspection.

Vertex Manufacturing, Vertex Manufacturing customer and regulatory authorities reserve the right to access the plant and records of the seller or their source to survey facilities, systems, and/or product to determine satisfactory conformance to the applicable specifications. Vertex Manufacturing Quality representative(s) may elect to conduct inspection either on a random basis or to the extent of 100% inspection. Seller will be notified if Vertex Manufacturing inspection is to be conducted on specific shipments. No shipments are to be held for Vertex Manufacturing inspection unless notification is received prior to, or at the time of, material being ready for shipment.

## **10.15.Quality Records Retention**

The supplier shall maintain Quality Records in accordance with the applicable Quality System. Quality Records shall be retained for a period of no less than ten (10) years from completion of the purchase contract. This requirement shall be flowed down to all sub tiers. Quality Records are, but not limited to the following:

- First Article Inspection Reports
- Test results
- Evidence of inspection
- Raw Material and Process certifications
- Nonconforming Material Reports

## **10.16.Certificates of Compliance**

Suppliers shall provide a Certificate of Conformance with all shipments for each part number assuring that all work performed in connection with the purchase contract in accordance with current specifications. The C of C may be a separate document or be included in the packing documentation. The certificate must contain the signature of a duly authorized officer or Quality Control representative of the seller and will read substantially as follows: "Materials and processes used to produce the item(s), components, parts, described on this Purchase Order conform to all Purchase Order requirements, referenced specifications or special requirements."

## **10.17.Corrective and Preventive Action**

The supplier shall respond to all request for corrective and preventive action on or before the requested due date. If extra time is needed a request for extension shall be made to the Vertex Manufacturing Quality Representative in writing. It is at the discretion of the Quality Representative to grant extensions and document them accordingly.

The supplier shall maintain a corrective/preventive action system in accordance with the ISO9001 for determining root cause and corrective and preventive action internally and sub tiers.

Vertex Manufacturing reserves the right to conduct verification of corrective and preventive action at the suppliers' and supplier's sub tiers facility to assess the effectiveness of the corrective and preventive action taken

## **10.18.First Article Inspection**



First Article Inspection shall be performed in accordance with AS9102, current revision based on the purchase contract issued date. First Article Inspection shall be performed on the first production unit, as well any subsequent revisions to the part and whenever a lapse of two years or more in production occurs a delta FAI is required as defined by AS9102. AS9102 \*standard\* can be accessed at WWW.SAE.org. \*Vertex Manufacturing's AS9102 form is available on our website under supplier management. The use of the standard AS9102 is required\*.

The first article inspection report shall include the following: part number, serial number (when applicable), revision level, supplier name, date of inspection, dimensional characteristics, drawing zone, tools identification, results of actual measurements, indication of inspection status, purchase order number, overall approval status and approving persons signature, title, and date. A "ballooned/bubbled" drawing shall be provided for all drawings with greater than \*20\* reportable dimensions.

\*Supporting documentation such as certifications of conformance for materials, components, or special processes as identified on the drawing or parts list shall be included with the First Article package. \*

Digital Product Definition (DPD) Requirements – When design requirements are provided by Vertex Manufacturing using DPD and traditional 2D drawing is not available for all requirements, the supplier shall extract, verify, and provide results of these characteristics on the FAIR as required in AS9102. The supplier shall provide a report/drawing that is "ballooned/bubbled" for the DPD requirements. The supplier shall implement a system to control the configuration of the DPD file provided by Vertex Manufacturing as well as their related CMM (Coordinate Measuring Machine) and CNC (Computer Numerical Control) programs.

The part used for the first article inspection shall be identified at delivery to Vertex Manufacturing.

First article reports \*can\* be shipped with the delivery of the parts \*or sent electronically to the buyer or supplier quality\*, the FAI documentation must be received at the time of delivery at Vertex Manufacturing.

Designated material will not be shipped to Vertex Manufacturing without a First Article Inspection Report signed by the supplier Quality Representative. The seller shall furnish, at no cost, the necessary facilities and equipment to perform tests as required by Vertex Manufacturing to demonstrate conformance to the purchase order and referenced documents.

If the supplier already has First Article Inspection documentation on file for the same configuration of the product noted in the purchase contract and is still compliant to AS9102 requirements, a new First Article Inspection is not required.

## **10.19. Supplier Sub Tier Control**

The supplier is responsible for ensuring that all items procured from their sub tiers conform to Vertex Manufacturing purchase contract. The supplier shall ensure that all applicable provisions are flowed to their sub tiers, including Quality System compliance to ISO9001, ISO13485, AS9100 or AS9003. All sub tiers are also required to utilize AS9102 for their First Article Inspection.