

**Quality Requirements**

<b>QR1. Inspection System Requirements</b>
<p>The Supplier shall provide and maintain an inspection system in conformance with a Quality System Approved by Cascade Gasket.</p> <p><b>Special Tooling:</b> The Buyer and Seller shall maintain the appropriate organizational structure, staffing levels, training, processes, procedures and equipment to adequately perform at the designated level of capability. The Seller is required to communicate to the Buyer for evaluation of capability impact when changes to Seller’s organizational structure, staffing levels, training, processes, procedures and/or equipment. Cascade Gasket shall be notified within (30) days of any changes to information exchange hardware and/or software used to communicate requirements.</p> <p>Supplier shall be working to the latest P.O. specified revision imposed and/or the latest standard published, and in effect, at the time of P.O. issuance to include all requirements of AS9100, Boeing D950-11059-1, D6 59119 and corresponding Cascade Gasket approved DPD_MBD Quality Plan.</p>
<b>QR2. Control of Changes</b>
<p>Supplier and/or Sub-Tier shall be required to use the latest drawing, specification revision level and/or latest applicable published standard unless otherwise specified on the P.O. The Supplier and their Sub-Tier agrees not to make any changes to material, design details or other product and/or process definition which could affect the part or any component part thereof without prior written Cascade Gasket approval.</p> <p>The Supplier shall identify, on the Statement of Conformance and/or Packing Sheet, the as-built revision level of the end item product being delivered.</p>
<b>QR3. Supplier Corrective Action</b>
<p>When nonconforming material and/or product is determined to be the Suppliers’ responsibility, the Supplier is required to respond to Cascade Gasket’s Corrective Action Request within (10) days of receipt. The Supplier shall provide a written response describing actions taken to prevent recurrence. Records of the results of those actions shall be maintained and furnished to Cascade Gasket upon request.</p> <p>Per Cascade Gasket’s discretion, failure to respond within (10) days may result in the return of material at supplier’s expense, at which time the Supplier’s account will be automatically debited.</p> <p>Corrective/Preventive Action shall be initiated and Cascade Gasket shall be notified by the Supplier for identified hardware, software and/or quality system failures that could affect product outcome and/or producibility.</p>
<b>QR4. Right of Entry</b>
<p>Cascade Gasket, our Customers, US Government and/or Regulatory Agencies reserve the right of access to supplier and supplier’s sub-tier facilities involved per (this) Purchase Order. This includes the right to enter, observe, record, and/or report on any activities and all applicable quality records at the Supplier and/or Supplier’s Sub-Tiers during the manufacture of our Customer’s products.</p> <p>In addition, Cascade Gasket reserves the right to verify at the Supplier and/or Supplier’s Sub-Tier facility</p>

**Quality Requirements**

that sub-contracted product conforms to specified requirements. Such verification shall not be used by the seller as evidence of effective control of quality by the supplier.

**QR5. Shelf Life and Temperature Sensitive Materials**

The Supplier shall identify all materials and articles which have definite characteristics of quality degradation with age and/or environment. The Supplier shall affix this information directly on the material container or article. This identification shall indicate the date useful life was initiated and the date and/or cycle at which the useful life will be expended.

When environment is a factor in determining useful life, the identification shall include the storage condition (i.e., temperature, humidity, etc.) required to achieve the stated life. A minimum of 85%, unless otherwise specified on the Purchase Order, of the applicable material/article **shelf life shall remain upon receipt of the material** by Cascade Gasket or the material is subject to rejection and returned to the supplier at supplier's expense

**QR6. Identification / Packaging**

Unless otherwise specified by Purchase Order, parts, assemblies and components shall be identified per the engineering drawing and marked with the date of manufacture. When identification is not specified on the engineering drawing, the product shall be identified with the part number specified on the purchase order. When items are too small to be easily identified; parts may be bagged or tagged, with the proper identification indicated on the bag or tag. Raw material procured to Federal, Military, Aerospace and/or other specifications shall be marked per the identification specification, which is referenced in the controlling specification. The Supplier is responsible for assuring that all items are delivered without damage or deterioration and are efficiently and economically packed for the method of transportation and/or type of handling involved. Unit and intermediate packaging shall be employed as necessary to prevent damage or deterioration.

In addition, each shipment by the Supplier shall be accompanied by a Statement of Conformance in accordance with the above. When the item(s) contained within an assembly, sub-assembly and/or detail part on this Purchase Order are supplied by a distributor, a copy of the Statement of Conformance from the true manufacturer must accompany each shipment.

**QR7. Material Safety Data Sheets**

Materials(s) noted on this Purchase Order must be supplied in accordance with OSHA's latest published Hazard Communication Standard 29CFR1910-1200, OSHA's latest Instruction CPL2-2.38 and latest Washington State Codes 296-62-05413 a "Materials Safety Data Sheets". All first time orders MUST be supplied with "Materials Safety Data Sheets". Materials not received in compliance with aforementioned OSHA requirements and Washington State codes will be subject to immediate rejection and return at supplier's expense.

In addition, if supplier is aware of any additional precautions and/or handling techniques instituted with regard to other customers, Supplier is required to submit those safeguards with MSDS.

Supplier is required to forward a Toxic Substances Control Act (TSCA) certification letter to Cascade Gasket for the product(s) indicated on this purchase order, to include a statement that every chemical

**Quality Requirements**

component of the product(s) is listed by the Toxic Substances Control Act Inventory (P.L. 94-94-969). If raw materials, parts or assemblies contain substance(s) of very high concern (SVHCs) as prescribed by EU Directive EC No. 1907/2006, Registration, Evaluation and Authorization of Chemicals, identification shall be included with the shipment. This identification should list the SVHC-designated chemicals present in the purchased article and the conditions under which handling precautions should be taken.

**QR8. Calibration System Requirements**

Supplier shall have a calibration system that assures compliance with **ANSI / NCSL Z540-1 "American National Standard for calibration"**. Any deviation or waiver to this requirement must be approved by Cascade Gasket's Material and Quality Assurance Representatives.

**QR9. Statement of Conformance**

The Supplier shall certify that the product delivered conforms in every aspect to the contractual and technical requirements of the Purchase Order, engineering drawings(s), specifications and standards referenced therein. Where required by Cascade Gasket Purchase Order, inclusive of all documents referenced therein, the Supplier must certify that parts, materials and processes have been procured from approved sources.

**QR10. Material Test Reports**

A legible unaltered copy of the test report must accompany each shipment, unless verified and validated by a Cascade Gasket Quality Assurance Representative at the Supplier's or Sub-Tier Supplier's facility. Test reports shall be identified with specification number, heat and/or cure lot number and cure date, as applicable. Chemical and physical test reports shall include actual numerical values for each property tested in accordance with the applicable specification. When more than one specimen is required, test results of each are required on the report. Specification and revision level shall be shown on each test report furnished.

Material Certifications stating chemical/physical analysis and tests shall accompany all orders of which the Supplier purchases the raw materials.

**QR11. Approved Process Requirements**

Special processes (i.e. testing, heat treat, nondestructive testing, etc.) when required by process specification must be performed by sources approved by Customer (process document owner).

The Seller is responsible for assuring that the processing source has in their possession a current customer approval of their process capability for the process(s) to be performed, prior to their performing the process.

In addition, each shipment must be accompanied by a legible unaltered copy of the certification from the processing source demonstrating compliance with the specification for the processes performed and that the processor is/was approved by the Customer to perform the processes at the time the product was processed. If this certification is verified and validated by a Cascade Gasket Quality Assurance Representative at the Seller's facility, it may be retained by the Seller.

The Supplier and any sub-tier supplier will use Boeing approved special processors, manufacturers and

**Quality Requirements**

their authorized distributors, and Boeing approved sources of non-domestic raw materials, as required and listed in D1-4426 Appendix D Boeing Approved Process Sources

**QR12. First Article Inspection**

A legible and reproducible copy of the **Sellers First Article Inspection Report (FAI)**, compliant with **AS9102** latest revision, on the initial part and/or lot (as applicable) at the detail, subassembly and/or assembly level **or after a Cascade Gasket production lapse of (2) years**. The results of the FAI shall indicate 100% conformance to engineering drawing characteristics, special processes, and functional test and laboratory requirements.

**Subsequent FAI's shall be performed under the following conditions:**

- 1 Engineering changes (configuration changes affecting form, fit and/or function) require a Delta FAI for those characteristics affected by the change.
- 2 If major changes are made in the Seller's production equipment, method of manufacturing, tool re-assembly, manpower and/or major environmental changes have occurred, a Delta FAI shall be performed for those characteristics affected by the change.
- 3 Major Hardware/Software Changes
- 4 Changes to software driven machine programs

**QR13. Report of Discrepancy**

Any departure from drawing specifications or other purchase order requirements shall be documented by the Seller and submitted to Cascade Gasket & Mfg. Inc., within **(24) hours** for consideration and disposition. A copy of the dispositioned document shall accompany each affected shipment.

**Report of Escape:**

The Seller upon discovery of a shipment/delivery of nonconforming product must provide notice of disclosure to Cascade Gasket within **(24) hours** of discovery.

**Report of Organization Changes**

The Seller shall notify Cascade Gasket of any changes to product, process, facility, manufacturing location, sub-tier supplier or major organizational changes within **(24) hours** for consideration and disposition.

**QR14. Traceability: Lot and Batch Control**

Seller shall maintain lot and batch segregation and control of raw materials and details of purchased items through the use of Cascade Gasket compatible standards for lot / batch, serial number and date of manufacture identification, for all items in the shipment. Shipping documents shall clearly identify the lot / batch and serial number, for all items in the shipment and if received separately must be kept segregated and clearly identified.

Supplier process controls for lot/batch segregation and identification shall ensure that subsequent suspect material and/or product that does not conform to specified requirements is prevented from unintended use or delivery via inadequate identification and/or inadequate coalescent batch/lot controls.

**Quality Requirements**

<b>QR15. Quality Assurance Records Retention</b>
Quality Records that are created and/or retained by the supplier must be complete, legible and identifiable to the corresponding product. Seller shall retain manufacturing planning, all certifications, and test reports required to assure that commodity conforms to the contractual and technical requirements of the Purchase Order for a minimum of (10) years after closure of the Purchase Order.
<b>QR16. Supplier Flow Down</b>
Seller shall notify Buyer prior to outsourcing any requirements pertaining to Buyer's Purchase Order. After approval for outsourcing, in writing by Buyer, Seller must flow down all requirements outlined on Buyer's Purchase Order, including any key characteristics, to their Supplier. The Supplier as the recipient of the Purchase Order is responsible for meeting all the specified technical and quality requirements, whether the Supplier performs the work, or the work is performed by the Supplier's Sub-Tier.
<b>QR17. Export Warning</b>
<p>This order may contain technical data and/or furnished materials whose export is restricted by the Arms Export Control Act (Title 22, U.S.C. Sec 2751, et seq.) or the Export Administration Regulations (EAR) (15 CFR chapter VII, subchapter C). Violators of these export laws are subject to severe criminal penalties.</p> <p>This information in document/digital form (and/or any other medium), including any attachments and exhibits hereto, may not be exported, released or disclosed to foreign persons whether here in the United States or abroad without first obtaining the proper export authority. Recipient shall include this notice with any reproduced portion of this document and with furnished materials.</p> <p>A foreign person is any natural person who is not a lawful permanent resident of the U.S. or who is not a protected individual, including foreign corporations, business associations, partnerships, trusts, societies or any other entity or group that is not incorporated or organized to do business in the U.S., as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions). It also includes any foreign interest and any U.S. person effectively owned or controlled by a foreign interest. If you should have additional questions please contact Cascade Gasket for further clarification.</p>
<b>QR18. Conflict Minerals</b>
Supplier shall certify that materials produced and furnished on this Purchase Order are free of conflict minerals as defined in section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.
<b>QR19. Sikorsky Approved Suppliers</b>
All special processes for details and assemblies shall be processed using Sikorsky-approved suppliers. All material and hardware used in details and assemblies shall be obtained from Sikorsky-approved sources.

**Quality Requirements**

<b>QR20. Over / Delayed Shipment of Goods</b>
<p>Cascade Gasket shall, at no additional cost to Cascade Gasket, retain goods furnished in excess of the specified quantity on in-excess of any allowable overage, unless seller requests return of such excess within forty-five (45) days of shipment. In the event of such a request, seller shall reimburse Cascade Gasket for reasonable costs associated with storage and return of excess.</p> <p>Supplier shall promptly notify Cascade Gasket of any anticipated and/or actual delays in delivery, what actions are being taken to prevent and/or minimize the delay, and upon Cascade Gasket request the Supplier shall, at their expense, ship goods via air or other expedited means to avoid and/or minimize any further delay of shipment.</p>
<b>QR21. DPAS Rated Orders</b>
<p>If this is a rated order certified for national defense use, Seller is required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 700) in obtaining controlled materials and other products, services and materials needed to fill this order. If this is a DX Rated Order, Seller must provide Buyer with written acceptance or rejection of this order within ten (10) working days after receipt. If this is a DO Rated Order, Seller must promptly provide Buyer with written acceptance or rejection of this order within fifteen (15) working days after receipt. Seller must include the reasons for the rejection in any written rejection of a rated order.</p>

<b>QR22. Terms and Definitions</b>	
<b>Customer</b>	<ol style="list-style-type: none"> <li>1. Generator of the purchase order</li> <li>2. The buying entity that is the issuer of a contract/purchase order to a sub-tier supplier</li> <li>3. The organization's immediate contract source; this may be a prime/first-tier supplier or subsequent contractor in the supply chain who flows this document to their suppliers as a requirement</li> </ol>
<b>Supplier</b>	<ol style="list-style-type: none"> <li>1. The furnisher of articles or related services, at any tier, to an approved manufacturer.</li> <li>2. An organization that enters into a contract with the acquirer for the supply of a system, software product or software service under the terms of the contract. NOTE: The term supplier is synonymous with contractor, producer, seller, or vendor.</li> <li>3. The entity or party that supplies product or services to a customer per the contract.</li> </ol>
<b>Sub-Tier</b>	<ol style="list-style-type: none"> <li>1. Supplier not working under a direct purchase order from the prime contractor but performing work on related products at a lower level in the supply chain (via purchase order cascade/flow-down)</li> </ol>

QR22. Terms and Definitions	
<b>Batch</b>	A definitive quantity of items produced to the same design under conditions that are considered uniform
<b>Calibration</b>	A process that establishes, under specified conditions, the difference between values indicated by a measuring system, and the true corresponding values of a quantity released by a current reference standard or working standard
<b>Certificate</b>	A document attesting that a particular product/service/organization conforms to specified requirements
<b>Certificate of Conformity</b>	A Document that certifies product conformity to process, design, and/or specification requirements; commonly referred to as a <b>“Certificate of Conformance”</b>
<b>Dataset(s)</b>	Information prepared and maintained by electronic means and provided by electronic data access, interchange, transfer or electronic media
<b>Defect</b>	<ol style="list-style-type: none"> <li>1. Non fulfillment of a requirement related to an intended or a specified use. A departure of a quality characteristic from its intended level or state that occurs with a severity sufficient to cause an associated product or service not to satisfy intended normal, or foreseeable, usage requirements</li> <li>2. Non-conformity related to an integrated or specific use</li> </ol> <p><b>Note:</b> The distinction between the concepts defect and nonconformity is important as it has legal connotations, particularly those associated with product liability issues. Consequently the term “defect” should be used with extreme caution</p>
<b>DPAS</b>	<p><b>Defense Priorities and Allocations</b></p> <p><b>Note:</b> The purpose of DPAS is to assure the timely availability of industrial resources to meet current national defense and emergency preparedness program requirements and to provide an operating system to support rapid industrial response in a national emergency</p>
<b>EAR</b>	<b>Export Administration Regulation</b>
<b>First Article Inspection (FAI)</b>	<ol style="list-style-type: none"> <li>1. A complete, independent, and documented physical and functional inspection process to verify that prescribed production methods have produced an acceptable item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable design documents.</li> </ol>
<b>First Article Inspection Report</b>	<ol style="list-style-type: none"> <li>1. The forms and package of documentation for a part number or assembly, including FAI results, as per this Standard.</li> <li>2. FAI results for a part or assembly, including the completed forms and documentation.</li> </ol>

QR22. Terms and Definitions	
<b>First Production Run</b>	The first production run is the first group of one or more parts that are the result of a planned process designed to be used for future production of these same parts. The first production delivery parts require an FAI. Development and prototype parts that are not intended for production use are not considered as part of the first production run.
<b>Lot</b>	<ol style="list-style-type: none"> <li>1. A defined quantity of some product, material, or service collected and submitted for acceptance together. It may or may not be the same as the definition of a lot for purposes of a contract, shipment, or anything other than acceptance.</li> <li>2. A definite quantity of some product produced under conditions that are considered uniform.</li> </ol>
<b>Lot Formation</b>	The process of collecting, segregating, or delineating production units into homogenous, identifiable groups according to type, grade, class size, composition, and/or condition of manufacture
<b>Lot Number</b>	A number associated with a production batch in order to allow <b>traceability</b>
<b>Maintainability</b>	The proportion of time that a system or component is accessible and operationally ready for use
<b>Manufacturer's Certificate</b>	A document issued by the product manufacturer that certifies product conformance to process, design, and/or specification requirements. Also known as a " <b>Certificate of Conformity</b> " or EASA Form 1 or FAA Form 8130
<b>Manufacturing Code</b>	A code used during the manufacturing process of a product to allow its <b>traceability</b> . May also be known as a "serial" or "batch, lot" number or "date code"
<b>Material</b>	A raw, semi-finished or finished purchased item (gaseous, liquid, solid etc.) of given characteristics from which processing into a functional element of the product is undertaken.
<b>Shall</b>	<ol style="list-style-type: none"> <li>1. Indicates mandatory requirements</li> <li>2. Indicates a required action, content or path, with mandatory application</li> </ol>
<b>Shelf Life</b>	<ol style="list-style-type: none"> <li>1. A predetermined period of time that a material or item retains its original characteristics and operational capacity and is further defined to encompass the Date of Expiration (DOE) and the time span from Date of Manufacture (DOM), Date of Shipment (DOS), Date of Receipt (DOR) or cure date to the installation or application date.</li> <li>2. Length of time a product may be stored without becoming unsuitable for use or consumption.</li> </ol>



QR22. Terms and Definitions	
<b>Test Report</b>	Objective evidence provided by either the manufacturer or a certified testing facility that the product conforms with specific design requirements and/or properties
<b>Unit</b>	Either a single part or a lot with small quantity of parts from a homogeneous process.
<b>Usability</b>	Multi-dimensional attribute that relates to the impact a product has on its end-users. In general it refers to the efficiency with which a customer can do their tasks with the product, and their overall satisfaction with that product.
<b>Validation</b>	<ol style="list-style-type: none"> <li>1. Confirmation by examination and provision of objective evidence that the particular requirements for a specific intended use are fulfilled</li> <li>2. The process of determining that software complies as follows: (1) conforms to its development standards (2) requirements and or specifications are fulfilled, (3) works as intended in the target environment.</li> <li>3. Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled.</li> </ol>
<b>Verification</b>	<ol style="list-style-type: none"> <li>1. Confirmation by examination and provision of objective evidence that specified requirements have been</li> <li>2. Confirmation through the provision of objective evidence that specified requirements have been fulfilled.</li> <li>3. Processes of evaluation to assure input requirements are achieved at the end of a development stage. Verification can occur at various times during a software process. Verification includes review, analysis, inspection, and test.</li> <li>4. Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled.</li> </ol>