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Purchase Order Specifications and Quality Requirements

All Suppliers are required to comply with Purchase Order notes. The general clauses (“G notes” listed below are an integral part of all Tool Gauge Purchase Orders and constitute a requirement for the Supplier. The applicable quality clauses (“Q notes”), when incorporated by reference on a specific Purchase Order, are an integral part of that Purchase Order and constitute a requirement for the Supplier.

These requirements are in addition to those set forth in any contracted document or Terms and Conditions. Compliance with these requirements does not reduce Supplier responsibility to furnish materials, products, and services that fully comply with all applicable drawing(s) and specification(s) requirements, nor does it guarantee acceptance of materials, products, or services by Tool Gauge.

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G01 Right of Entry

Tool Gauge, its customers and regulatory authorities shall have right of access to all facilities and review all processes, subcontractors, contracted parts, procedures, and records related to this order.

G02 Tool Gauge Supplied Drawings

All engineering drawings provided by Tool Gauge are Tool Gauge property and must be returned with the order.

G03 Certification of Compliance

The Supplier shall include with each shipment, one (1) legible copy of a certifying statement which attests to the Supplier's compliance with all requirements of the Purchase Order. The required statement shall constitute certification by the Supplier that provided articles and services fully comply with all Purchase Order Requirements, engineering drawings(s), specifications and standards referenced therein.

The Certificate of Compliance (C of C) shall be signed by a responsible quality representative of the Supplier and, as a minimum, shall contain a statement of full compliance; the Tool Gauge's Purchase Order number; part number and quantity; supplier's shipping document number; serial numbers or lot numbers of articles, when applicable per engineering drawing.

Shipments received without required certification will be rejected prior to inspection and returned at the supplier's expense.

G04 Sub-Tier Flow Down


Supplier shall flow down to their sub-tier supplier(s) any requirements in purchasing documents, including key characteristics, where required. Supplier shall provide evidence that requirements have been flowed down if requested by Buyer. The supplier/processor shall inspect or otherwise verify that all materials and or parts thereof, including those procured or furnished by subcontractors comply with the requirements of Tool Gauge purchase order prior to shipment to Tool Gauge.

G05 Quality Records

Supplier shall maintain, and have available on a timely basis, quality records traceable to the conformance of product/part numbers delivered to Tool Gauge. Supplier shall make such records available in the English language to regulatory authorities and Tool Gauge's authorized representatives. Supplier shall retain such records for calendar year + 10 years from the date of shipment under each applicable order for all product/part numbers unless otherwise specified on the order.

At the expiration of such period set forth above and prior to any disposal of records, Supplier will notify Tool Gauge of records to be disposed of and Tool Gauge reserves the right to request delivery of such records. In the event Tool Gauge chooses to exercise this right, Supplier shall promptly deliver such records to Tool Gauge at no additional cost on media agreed to by both parties.

Tool Gauge requires that the provisions/requirements set forth above be included in Supplier's direct supply contracts related to the Products/Part Numbers. Supply Chain shall mean network of material, equipment, information, and services integrated into products and services for the ultimate customer.

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G06 Packaging

Unless otherwise specified by the item drawing, specification of purchase order, 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 type of handling involved. Unit and intermediate packaging shall be employed as necessary to prevent damage or deterioration.

G07 Changes to Manufacturing Conditions

The supplier will not, and will ensure its supply chain will not, initiate a movement or transfer of the location of work to be performed without Tool Gauge's written approval prior to the manufacturing start date of the first part associated with the work transfer.

The Supplier shall notify Tool Gauge when significant changes are made to the Supplier's inspection system or manufacturing facility. Significant changes are defined as a change in quality leadership, moving the Supplier's manufacturing facility, or damage to the Supplier's manufacturing facility.

G08 Subcontracting without Written Approval

Subcontracting all or substantially all the order without written consent of Tool Gauge Quality Assurance and Purchasing is prohibited.

G09 Corrective Action

In response to Buyer initiated corrective action requests, the Supplier shall complete forms designated by Tool Gauge describing the action(s) taken to correct the reported discrepancies.

G10 Digital Data Control

When digital product definition (DPD) data is utilized in manufacturing, inspection, and sub-tier flow down of product definition, Supplier shall have a quality system to control DPD data to the extent necessary to meet the requirements of Boeing D6-51991.

G11 Control of Changes


Supplier and their sub-tier are to use latest drawing and/or specification revision level unless otherwise specified on the PO. The supplier and their sub-tier agree not to make any change in materials, design details or other product and/or process definition which would affect the part or any component part thereof without prior written Tool Gauge approval.

The supplier will identify, on the Certificate of Conformance and/or packing sheet, the as built revision level of the end item product being delivered.

G12 Notices of Nonconformance, Escapement, and Engineering Error

Any departure from drawing specifications or other purchase order requirements shall be documented by the Supplier and submitted to Tool Gauge for consideration and disposition prior to shipment. A copy of the dispositioned document shall accompany each affected shipment.

When the Supplier has found a nonconforming condition(s) on parts that have already been shipped to Tool Gauge, Supplier must submit a Notice of Escapement to Tool Gauge. The Supplier's notice shall include:

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1. Affected process(es) or product(s) part number(s) and name(s).
2. Description of the nonconforming condition(s) and the affected engineering requirement(s) (i.e., the “is” and “should be”).
3. Quantities, shipping dates, purchase orders, and destinations of delivered shipments.
4. Suspect/affected serial number(s) or date codes, lot numbers, or other part identifiers.

At a minimum, Supplier shall notify Tool Gauge within three days from the day of discovery of the known or suspect discrepancy. If the investigation to obtain all required information is not completed within three days from the day of discovery, Supplier shall submit information for items 1 and 2 and any known information for items 3 and 4. All information listed in sections 1, 2, 3, and 4 shall be submitted to Tool Gauge within ten business days from the day of discovery unless otherwise agreed upon by Tool Gauge.

When the Supplier determines that product(s) shipped, while meeting product definition, does not meet (or is suspected not to meet) airplane design requirements, Supplier must notify Tool Gauge in writing of the engineering error(s). The Supplier’s written notification shall include:

1. Affected process(es) or product(s) part number(s) and name(s).
2. Description of the problem(s) (i.e., the “is” and “should be”).
3. Quantities, shipping dates, purchase orders, and destinations of delivered shipments.
4. Suspect/affected serial number(s) or date codes, lot numbers, or other part identifiers.

Written notices described above shall be submitted by the Supplier to the Tool Gauge Purchasing representative.

G13 Over-shipment Of Goods

Tool Gauge shall, at no additional cost to Tool Gauge, retain goods furnished in excess of the specified quantity on in excess of any allowable overage, unless Supplier requests return of such excess within forty-five days of shipment. In the event of such a request, Supplier shall reimburse Tool Gauge for reasonable costs associated with storage and return of excess.


G14 Warning Concerning Technical Data Subject to U.S. Export Laws & Regulations

Supplier agrees to comply fully with all applicable U.S. Laws and Regulations as they may apply to the export of any hardware, software, defense service or technical data (collectively “Data”) provided by, through or with the cooperation of Supplier in the performance of this subcontract in the U.S. or abroad or under any export license or exemption issued to Tool Gauge. Supplier agrees that it will not permit the re-export of data, including to foreign persons, employed by or associated with, or under contract to Supplier or Supplier’s sub-tier suppliers, without the prior written consent of Tool Gauge and under authority of an Export License or applicable License Exemption.

In addition, Information furnished to Supplier under this solicitation/purchase order may contain data subject to U.S. Export Laws and Regulations. Supplier is advised that such data may not be exported or re-exported to foreign persons, employed by or associated with, or under contract to Supplier or Supplier’s sub-tier suppliers, without the prior written consent of Tool Gauge and under authority of an Export License or applicable License Exemption. If such data is marked as Export Controlled, Supplier indemnify and hold Tool Gauge harmless from and against any and all claims, liabilities and expenses resulting from Supplier’s failure to comply with the Export Laws and Regulations of the United States.

G15 ITAR Requirements

IMPORTANT/CONFIDENTIAL: This PO (and any drawings and/or attachments accompanying it) may contain confidential information, including information protected by United States Government. The information is intended only for the use

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of the intended recipient(s). Delivery of this PO to anyone other than the intended recipient(s) is not intended to waive any privilege or otherwise detract from the confidentiality of the PO. If you are not the intended recipient, or if this PO has been addressed to you in error, do not read, disclose, reproduce, distribute, disseminate or otherwise use this information, rather, please promptly notify the sender by phone or e-mail, and then destroy all copies of the PO and its attachments, if any.

The equipment and/or technical data generated or delivered in performance of this contract may be controlled by the Code of Federal Regulations, International Traffic in Arms Regulation (ITAR), 22CFR, Chapter 1, Part 120, Sections 120-130, and may require an export license before assigning any foreign person or foreign national to perform work under this contract or before granting access to foreign persons or foreign nationals to any equipment/technical data generated or delivered in performance of this contract (See 22CFR, Ch. 1, Section 123).

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. It also means any foreign corporation, business association, partnership, trust, society 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. A foreign national is any person who is not a citizen or national of the U.S. If you have any questions about the proper application of ITAR restrictions, immediately contact your Tool Gauge Procurement Representative for resolution.

G16 Manufacturing Planning

“Controlled” or “Approved” planning requirements are derived from the part specific Engineering requirements. Planning changes to “controlled” or “approved” planning requires compliance with the associated process prior to implementing proposed changes within seller’s production system and commencing manufacture. Seller shall submit manufacturing planning changes to Tool gauge in accordance with the requirements described within the associated process for approval/re-approval (i.e., D6-1276, D6-17781, BSS7085, BSS7029, BSS7082, BSS7119, D6-36232, BAC5980, BSS7286).

Q01 First Article Inspection

The Supplier shall perform First Article Inspection in accordance with AS/EN/SJAC 9102 and provide a copy with the first shipment. FAIRs must be submitted electronically in Net-Inspect to “TOOL GAUGE AND MACHINE WORKS INC – TACOMA” instead of physically shipped with product.


Note: When submitting FAIR via Net-Inspect, ensure Form 1 Fields 19, 20, 21, and 22 are completed to finalize the document.

Q02 System Requirement

The Supplier shall establish and maintain an organized system of Material and Quality Control, which will ensure that only articles that conform to all requirements of the Purchase Order are delivered to Tool Gauge.

Q03 Inspection System Requirements

The Supplier shall provide and maintain an inspection system in conformance with Specification MIL-I-45208A or ISO-9003. Supplier shall have a calibration system that assures compliance with Military Specification MIL-STD-45662 or ANSI/ASQC Z 540 (latest revision).

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Q04 Quality System Requirements

The Supplier shall have developed and maintained Quality Management System in accordance with AS9100 (latest revision) or Boeing D6-82479 (latest revision), including a measuring instrument calibration system in accordance with ISO-17025M or ANSI/ASQC Z 540 (latest revision). The system shall be adequate to assure that material delivered under this order will comply with all applicable drawings, specifications, and other purchase order requirements.

The Supplier shall perform 100% inspection for in-process and final inspection, or the Supplier shall conform to the requirements of AS9138 “Aerospace Series – Quality Management Systems, Statistical Product Acceptance Requirements”. With the exception noted herein Supplier’s statistical sampling procedure/plan conformance to AS9138 with minimum protection levels meeting AS9138 Table A1 and C=0 will constitute Tool Gauge approval subject to restrictions noted in AS9138, Section 4.3 Safety/Critical Characteristics, and part/product Design Data sampling requirements and/or prohibitions. Tool Gauge reserves the right to disallow a supplier's statistical methods for product acceptance for specific sites/programs, parts, or characteristics.

The Supplier shall establish and maintain a FOD prevention program that conforms to the requirements of AS/EN/SJAC 9146 “Foreign Object Damage (FOD) Prevention Program – Requirements for Aviation, Space, and Defense Organizations”.

When the Supplier delegates product verification, Supplier shall conform to the requirements of AS9117 “Delegated Product Release Verification”.

If the Supplier uses an Operator Self-Verification program, Supplier shall conform to the requirements of AS9162 “Aerospace Operator Self Verification Programs”.

Tool Gauge reserves the right to conduct surveillance at Supplier’s facility to determine that Supplier’s quality system conforms to the requirements of the AS standards above.

Q05 Calibration Services


The Supplier of calibration services must perform calibrations in accordance with nationally accepted methods / procedures and acceptance tolerances must be in accordance with manufacturer's recommendations unless specified otherwise. The Supplier of calibration services shall have a measuring instrument calibration system in accordance with ISO-17025M or ANSI/ASQC Z 540 (latest revision).

Q06 In-Process Inspection

In process inspection is required by Tool Gauge. When this is required, the specific inspection point(s) in the process will be specified on the Purchase Order. The supplier/processor shall contact Tool Gauge and hold the material for in-process inspection by Tool Gauge Quality Assurance.

Q07 Source Inspection

Tool Gauge Source Inspection is required prior to shipment. To schedule source inspection, the Supplier shall notify Tool Gauge's Purchasing Department at least 48 hours in advance of the article(s) being available for inspection. Source Inspection does not constitute final acceptance by Tool Gauge, nor does it relieve the Supplier of the responsibility for compliance with all requirements of the Purchase Order. The Supplier shall provide facilities and assistance as may be reasonably required by Tool Gauge personnel in the performance of their inspections.

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Q08 Test Reports

The Supplier shall furnish actual chemical and physical test reports, one (1) copy for each lot, batch, or heat, whichever is applicable with each shipment. Applicable specification and revision must be listed on the report along with lot, batch, heat lot or other traceable designation (i.e. purchase order number, invoice number, etc.).

Tool Gauge supplied material will be maintained by Tool Gauge and is not subject to this clause.

Q09 Special Process Certification

Each shipment shall be accompanied by one (1) legible copy of the certification for special processes used under the terms of this Purchase Order. Special processes include, but are not limited to: heat treating, welding, magnetic particle inspection, penetrant inspection, ultrasonic inspection, brazing, soldering, shot-peen, chemical conversion, and plating. The certification shall list all applicable specifications, including revision letter or number to which the process conforms, the type or class (if applicable), the date, Purchase Order number, Tool Gauge 's part number and quantity as a minimum.

When required by the process specification, special processes must be performed by sources approved by the customer (process document owner). The Supplier is responsible for assuring that the processing source has in their possession a current customer approval of their process capability for the processes to be performed, prior to their performing the process. For all Boeing work, refer to D1-4426 found on Boeing's website:

<http://www.boeing.com/companyoffices/doingbiz/d14426/index.html>.

~~Q10 Traceability/Lot and Batch Control~~

Note: This clause is obsolete and has been superseded by [Q24 Traceability/Lot and Batch Control](#)

Q11 Confidentiality Notice

This Purchase Order and any associated electronic messages, drawings, specifications digital datasets, or other attachments are intended solely for the use of the entity identified therein for supplying the specified purchased products. Any unauthorized review, dissemination, copying, printing, disclosure, distribution, or other use is prohibited, unless expressly authorized.

~~Q12 Warning Concerning Technical Data Subject to U.S. Export Laws & Regulations~~


Note: This clause is obsolete and has been superseded by [G14 Warning Concerning Technical Data Subject to U.S. Export Laws & Regulations](#).

Q13 RoHS Reportable Substances

All materials supplied on this order must be RoHS (Restriction of Hazardous Substances) compliant. Information about RoHS can be found on this site: www.pb-free.info/.

Q14 Identification of Shelf-Life Material

The Supplier shall identify all materials and articles which have definite characteristics of quality degradation with age 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 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 conditions (i.e., temperature, humidity, etc.) required to achieve the stated life. A minimum of 75% of the applicable material/article

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shelf life shall remain upon receipt of the material by Tool Gauge or the material is subject to rejection and return to the Supplier.

Q15 Material Safety Data Sheets

Material(s) noted on this purchase order must be supplied in accordance with OSHA’s hazard communication standard 29CFR1910-1200, OSHA instruction CPL2-2.38 dated August 5, 1985 and Washington state codes 296-62-05413 “Materials Safety Data Sheets”. Materials not received in compliance with OSHA requirements and Washington State codes will be subject to immediate rejection and return at supplier’s expense.

Q16 ITAR Requirements

Note: This clause is obsolete and has been superseded by [G15 ITAR Requirements](#).

Q17 Control of Counterfeit Parts

The Supplier shall implement a system for controlling counterfeit parts. The system shall require that all applicable parts (e.g. electrical components and fasteners) are procured from the Original Equipment Manufacturer (OEM) or an OEM-franchised or authorized distributor. If purchase from the OEM or an OEM-franchised or authorized distributor is not possible or practical, the system shall provide a process for validating authenticity of the purchased parts including applicable certifications, test/inspection results, and all other documentation that provides identification and verification to design, traceability, and acceptable packaging and handling.

Q18 Traceability Certification

The Supplier shall certify in writing that parts are traceable to the Original Equipment Manufacturer (OEM) or OEM-franchised or authorized distributor. Should suspect/counterfeit parts be furnished under the purchase agreement, these items shall be impounded and destroyed by Tool Gauge. The Supplier shall promptly replace such suspect/counterfeit parts with parts acceptable to Tool Gauge and the Supplier shall be liable for all costs including, but not limited to, Tool Gauge’s internal and external costs.

Q19 Boeing FAA Production Certificate 700

This procurement is under Boeing’s federal aviation administration (FAA) issued production certificate 700 quality system supplier control program. Unless explicit contractual direction is given to the contrary, no articles (or constituent parts thereof) shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings and the accompanying paperwork (e.g., packages, shippers, etc.) shall not contain any FAA-PMA markings.


In addition, the Supplier shall flow down this requirement to their applicable sub-tier supply chain.

Q20 Personnel

The supplier shall ensure that persons involved in providing the products and services specified on Tool Gauge purchase orders are made aware of their contribution to product and service conformity, their contribution to product safety, and the importance of ethical behavior.

Q21 Process Specifications

The Supplier shall verify that they have available all specifications referenced on the purchase documents and on the drawings and parts lists that are used in providing the products and services required by the purchase documents. They may be obtained from the contact(s) specified on this purchase order. The Supplier shall also verify the status of

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specification revisions and active deviations. This may be accomplished by using the Boeing Supplier Portal, information posted on D1-4426 at http://active.boeing.com/doingbiz/d14426/bac_specrev.pdf.

Q22 Test Reports

The Supplier shall retain actual chemical and physical test reports, one (1) copy for each lot, batch, or heat, whichever is applicable with each shipment. Applicable specification and revision must be listed on the report along with lot, batch, heat lot or other traceable designation (i.e. purchase order number, invoice number, etc.).

Tool Gauge supplied material will be maintained by Tool Gauge and is not subject to this clause.

Q23 Traceability/Lot and Batch Control

Supplier must maintain lot and batch control of raw materials to purchased items. Supplier must retain records of positive traceability of manufactured parts and assemblies to raw materials through the use of lot, batch, or serial numbers.

Q24 Traceability/Lot and Batch Control

The Supplier must furnish objective evidence demonstrating positive traceability of lot/batch control of raw materials from the Original Equipment Manufacturer (OEM) or OEM-franchised or authorized distributor to items procured across the entire supply chain. This positive traceability will be accomplished through the use of lot, batch, or serial numbers verifiable to the OEM, OEM-franchised or authorized distributor.