

Hydrojet Services, Inc. (HSI)

Purchase Order Supplier Quality Requirements (SQR) and Commodity Code Tables

1	<p>SUPPLIER'S QUALITY SYSTEM: The supplier shall implement and maintain a quality management system and process controls that satisfy HSI purchase order requirements. Suppliers that provide product to HSI shall be compliant to all applicable ISO 9001 :2008 requirements, except for pass-thru distributors unless restricted by contract. Calibration suppliers shall be compliant to ANSI/NCSL Z540-1.</p> <p>Note 1: Sikorsky Aircraft Contracts: All Suppliers that provide product on purchase orders that state for "Sikorsky Aircraft End Use" shall be compliant to all applicable AS/EN/JISQ 9100 and ASQR-01 common and unique requirements. Stockist Distributors and organizations that carry out the purchase, storage, splitting and sale of product without affecting product conformance may be AS/EN/JISQ 9120 compliant in lieu of AS/EN/JISQ 9100.</p> <p>Note 2: Deviation from these requirements shall be requested in writing by the buyer and approved by the Quality Assurance Department for HSI prior to use. Sub-tier Suppliers whose Quality System meets the above requirements and have been approved for limited use by the Quality Assurance Department require SQR 3 on all purchase orders and 100% inspection at Quality Receiving Inspection.</p>
2	<p>RECEIVING INSPECTION: Material will be inspected in quality receiving inspection when received from supplier. (Clause internal to HSI, no effect on supplier).</p>
3	<p>CUSTOMER ACCESS: During performance of this order, supplier's quality/inspection system, manufacturing processes, inventory control and lot traceability are subject to review, verification and analysis by an authorized customer representative and/or applicable regulatory agency. In addition, HSI Buyer must be notified of process or material changes and any non-conformance prior to shipment of product. Release of shipment is not required unless supplier is otherwise notified. This clause also applies to the supplier's sub-tier contractors.</p>
4	<p>FIRST LOT SOURCE INSPECTION: HSI reserves the right to perform/witness verification of sub-tier supplier's processes, procedures, equipment, personnel qualification and final inspection/test on the first lot of products manufactured on this order at the sub-tier supplier's facility prior to shipment.</p>
5	<p>IN-PROCESS SOURCE INSPECTION: HSI's material quality reserves the right to witness in-process testing at the supplier's facility. The inspection will be performed concurrently and will not interrupt the manufacturing personnel.</p>
6	<p>SPECIAL PROCESS AUDITS: HSI reserves the right to perform periodic assessments for any special processes identified in the purchase order or specifications. These reviews are intended to ensure suppliers are performing processes to their internal procedures and requirements.</p>
7	<p>SUPPLIER DATA RETENTION: When clause 9,10, 11, 12, 13, 14 or 26 is specified in conjunction with this clause on the purchase order, supplier records are to be retained as follows: (a) Critical/Safety of Flight parts require the supplier to retain records for forty (40) years from completion of the purchase order; (b) Off-the-shelf industry standard parts (e.g., AN, AS, MS) require the supplier to retain records for seven (7) years from completion of the purchase order; and (c) All other parts require the supplier to retain records for ten (10) years from completion of the purchase order. In addition, when Clause 25 is implemented, records of calibration shall be retained for a minimum of 10 years from completion of the purchase order.</p>

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8	DELIVERY OF DOCUMENTATION: When clause 10, 11, 12, 13, or 14 is specified in conjunction with this clause on the purchase order, the supplier shall deliver with product, the appropriate documentation meeting all specified parametric/environmental requirements.
9	CERTIFICATE OF COMPLIANCE: The document shall be authenticated by signature, controlled stamp, or electronic signature. The document shall identify the product by part number and description, serial numbers for serialized parts, and lot/sub-lot numbers for items identified by lot/sub-lot numbers. The document shall also state conformance to, and contain the applicable Aurora purchase order number and when specified, governing product specification(s), including revision level and amendment(s)/deviation(s) thereto.
10	CERTIFICATION OF ANALYSIS/TEST REPORT(S): Certification of actual results of chemical/physical/electrical tests conducted on materials/parts submitted must be provided. Reports shall identify product test specifications including revisions used, tests conducted and actual results of tests traceable to tested product.
11	CERTIFICATION OF AGE OR TEMPERATURE SENSITIVE MATERIAL: The certification shall include the cure date, manufacture date, expiration date, special storage temperature, and handling requirements, when applicable. 75% of the shelf life shall remain on age or temperature sensitive material upon receipt at HSI. The buyer may in special cases, such as small or emergency orders reduce the shelf life requirement as required to support production delivery for shelf life remaining by purchase order amendment. Shelf life that does not meet purchase order requirements shall be subject to rejection and return at supplier's expense.
12	CERTIFICATION OF STANDARD PROCESSES: Certification that standard processes were performed in accordance with specification/purchase order requirements shall be documented as part of the product traceability. Supplier may utilize internal supplier processes, unless otherwise noted on the purchase order. Special process suppliers must comply with specification and revision control as described by the prime contractor flow down requirements and shall be adhered to where SQR Code 29 is applied in conjunction with this SQR.
13	<p>FIRST ARTICLE: First Article Inspection (FAI) is required. One piece from the first production lot shall be designated as First Article by the Supplier. Inspection reports shall have the recorded values for the drawing/model and certification for all drawing/model notes and fixturing. First Article Inspection (FAI) shall be performed per the requirements of AS9102 and any additional Prime Contractor requirements flowed down through the purchase order (PO). If the Supplier already has completed FAI documentation on file that meets the intent of AS9102, submit these documents to HSI Quality through the Buyer to determine if new FAI is required.</p> <p>Note 1: Sikorsky Aircraft Contracts: All Suppliers that provide follow-on parts after FAI completion shall provide a completed Inspection Checklist (ICL) for all subsequent parts per UTC and SAC ASQR-01. ICLs do not require actual dimensioning to be completed; ACCEPT or REJECT is</p>

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	<p>acceptable. ICLs do require inspection reports based on drawing/models, original special process certification and material certifications as required with FAIs.</p> <p>Note 2: Partial or Re-accomplishment of FAI: Subsequent lots for the same part number shall not require an FAI unless previous FAI part was found non-conforming or as required by AS9102, section 5.3.</p>
14	<p>FAILURE ANALYSIS/CORRECTIVE ACTION: Failure analysis and corrective action reports are required within 30 days from date of origination as indicated on the Corrective Action Request.</p>
15	<p>RESTRICTED HAZARDOUS MATERIALS: Supplier shall certify that restricted hazardous materials (listed below) are not contained in any delivered hardware and shall not be used in design, manufacture, operation, or test of a system, subsystem, item or component. Should a requirement exist that specifies the use of a restricted hazardous material, the supplier shall provide written notification of this requirement to Aurora.</p> <ol style="list-style-type: none"> 1. Asbestos 2. Carbon Tetrachloride 3. CFC's - 11, 12, 13, 111, 113, 114, 115, 211, 212, 214, 215, 216, and 217 and blends R-500, R-501, R-502 and R-503. 4. Halon's - 1011, 1202, 1211, 1301, 2401, 2402 5. Hydrazine 6. Methyl Bromide 7. Polychlorinated Biphenyl (PCB's)
16	<p>CUSTOMER FURNISHED EQUIPMENT: Responsibility for compliance of material to applicable specifications furnished to HSI is that of the customer as applicable. Material furnished shall be identified to applicable documentation, quantity and reviewed for shipping damage prior to movement to stores. Aurora believes material furnished to be in compliance to customer's applicable specification(s).</p>
17	<p>DOCK TO STOCK PROHIBITED: <i>SQR 2 Prohibited</i> — This product will not be subjected to the dock-to-stock process. Product will continue to be inspected until changed by the appropriate engineer.</p>
18	<p>HAZARDOUS MATERIAL IDENTIFICATION: The supplier shall submit to HSI a listing of any hazardous materials delivered as part of the product manufactured. Material safety data sheets (MSDS) for each material shall be included. Hazardous material includes any material defined under the latest version of Federal Standard 313 (FED-STD-313) and OSHA 29CFR 1910.</p>
19	<p>PRODUCT PACKAGING: The supplier is responsible for ensuring that product is packaged in a manner to prevent damage during shipment. Unless directed by the purchase order or specifications, each contract item must be packaged and identified separately. Markings on primary packaging must include the part number, nomenclature and quantity. If applicable, include serial number, Lot number and cure date. Do not combine items from different purchase orders in the same shipping container.</p>

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20	DOCUMENTATION EFFECTIVITY: Applicable specified MIL-SPEC and/or buyer process specification/Process bulletins or buyer engineering drawings shall be current issue or revision level in effect on the date of issuance of this purchase order, unless otherwise specified.
21	SUPPLIER CONTROL: The seller shall flow down to sub-tier suppliers applicable requirements of the drawing, specifications, key characteristics as applicable, and this purchase order.
22	N/C PROGRAM GEOMETRY: Upon prove out of the N/C program geometry by HSI, the supplier shall assign a revision control letter to the program. A copy of this program, with the revision letter, will be furnished to HSI at no additional cost. Any subsequent revisions shall only be made with prior written authorization from Engineering and Quality at HSI. Revisions of feeds, speeds and tool lengths may be made without written authorization.
23	ALUMINUM CLAD MATERIAL: All clad material shall have a protective plastic coating applied to the clad surface(s) to preclude scratches, gouges, dents and dings. All clad surfaces must be free from these defects. In addition to those, surface defects resulting from first cut operations shall be cause for rejection.
24	<p>CALIBRATION: Equipment calibration shall be performed to meet the requirements of ANSI/NCSL Z540.1. Calibration range and accuracy, at a minimum, shall be performed to OEM applicable specification and tolerances. Detailed notes provided within or as an attachment to the purchase order that define/identify specific calibration requirements/intervals are mandatory and shall be complied with as part of the equipment calibration. Calibration certificates shall be compliant to ANSI/NCSL Z540.1, Section 13, and must also include:</p> <ul style="list-style-type: none"> • Temperature and Relative Humidity during calibration • Manufacturer and Model of item calibrated • Operating Range of item calibrated • Serial Number / Asset Number of Items calibrated a Date calibration performed and recall due date in month, day, year (MM/DD/YYYY). • Nomenclature of National Institute of Standards & Technology (NIST) traceable standards used to perform the calibration, serial/asset number and recall date. • Standard Points of Measurements. These points must include, as near as possible, the lowest and highest points in the range of operation for which the unit will be used, and recorded on the calibration certificate. Items with only one tolerance to verify shall be recorded as required and state Pass/Fail. (For example: Pin Gage 0.1000 Tolerance +/- .0005, Results 0.1001, Pass) a Thermocouple/Instrument correction factor, if applicable • Standard's known value, if applicable • As Found Condition • After Adjustment/As Left Condition • Overall Condition of Unit: Pass/Fail or In/Out of Tolerance • Items submitted for calibration that are identified as having an "Out of Tolerance" (OOT) condition shall be documented as the "As Received" condition and reported to the originator in writing. Additional calibration data points may be requested for OOT conditions to assist in determining if product impact has occurred. Calibration adjustments to bring a unit into specification shall not be performed until Aurora Quality Department has reviewed the OOT condition and released the equipment for adjustment and return to service.

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25	SHEET/PLATE RAW MATERIAL: All Sheet/Plate supplied product shall not have scratches, gouges or any other surface imperfections that exceed 2%, in depth, of the specified material thickness and shall be cause for rejection if present. Not applicable to clad material. See SQR 24 for clad material.
26	HARDNESS READINGS reported on certifications shall have the actual hardness value and the scale used. Converted hardness values and scales shall only appear in <i>addition</i> to the actual hardness value and scale. When a ball indenter is used, the scale designation is followed by the letter "S" to indicate the use of a steel ball or the letter "W" to indicate the use of a tungsten carbide ball. Converted hardness values and scales, when recorded, shall only appear in parentheses, <i>i.e.</i> , (35 HRC).
27	HARDNESS/CONDUCTIVITY CERTIFICATIONS shall include the applicable specification range in addition to the data required in SQR 27. NOTE: For fabricated parts, supplier shall perform 100% conductivity testing after fabrication, but prior to finishing.
28	SUBCONTRACTED SPECIAL PROCESSES: When this clause is specified, an "Approved Special Process Supplier" list exists. The supplier shall follow specific requirements addressed in the purchase order for compliance to HSI's primary customer flow down. Contact buyer for clarification and/or purchase order amendment if these requirements are not clear.
29	CUT SIZE MATERIAL: When Raw Metallic Material is ordered "cut to size" and that size is 6" x 6" or larger, material supplier shall furnish a coupon measuring 2" x 2" for each lot number delivered. The coupon shall be identified, per the applicable specification, as the cut to size material. Example, manufacturer, mill lot number, material type/temper, and applicable specification.
30	NO FOREIGN SPECIALTY METALS PERMITTED. When verifying raw material certifications, assure specialty metals as defined in DFAR 252.225-7014 are not of foreign origin. Those countries exempt from this requirement are the following: Australia, Belgium, Canada, Denmark, Egypt, Italy, Israel, Spain, Luxembourg, Netherlands, Norway, Portugal, Turkey, France, United Kingdom of Great Britain and Northern Ireland, Greece, Federal Republic of Germany

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31	<p>TOOLS: Tools must be scribed with EOP's. Tools must be scribed with centerline and /or any appropriate fuselage stations, butt-lines, or water lines. Tools must be able to fit inside autoclave (see Figure 1 below) (max length of 4' x 8'), unless otherwise specified. Tools must be restrained properly for thermal distortion. Tools must have good passages for airflow. Tools should include suitable location(s) off of lay-up area for vacuum hookup(s). Where required by manufacturing, tools will have scribe lines for core location</p>
32	<p>TOOL SIZE: Tools that exceed 25 lbs shall have built-in hoist points and/or forklift tubes.</p>
33	<p>TOOL DESIGN QUALITY REQUIREMENTS: A total design with all pertinent projected views, applicable notes and supporting data shall be submitted for review and approval prior to initiating fabrication. For review, the supplier shall submit two copies of the design. A stamped and signed copy will be returned to the supplier. All tool designs shall be submitted prior to release fabrication.</p> <p>Materials designations shall be identified by recognized industry specifications. All Engineering data, stress calculations, coefficient thermal expansion, etc., shall be included in the design data package. The design shall be furnished on reproducible media. If the designs are produced electronically, this data shall be submitted along with the reproducible copy. All design drawings shall clearly identify cyclic and functional inspection requirements. Drawings shall also specify our tool number, the part manufactured using the tool, the revision designation and date of fabrication.</p>
34	<p>TOOL PART MARK REQUIRED: Tool part mark/data plate installation shall be per purchase order flow down requirements. If tool identification and tool markings are not defined in purchase order or flow down contact buyer for PO amendment prior to identification.</p>
35	<p>TOOL REFERENCE SYSTEM: Tools must have an adequate reference system to be able to locate drawing part characteristic from these points.</p>
36	<p>TOOL FABRICATION QUALITY REQUIREMENTS: Supplier shall conduct a 100% tool inspection and <i>supply all actual inspection data</i> in a logical manner. The method of inspection and tooling used shall be submitted to HSI for approval prior to shipment. Tool calibration shall be performed to the requirements of ANSI-NCSL Z540.1. The degree of accuracy and precision of the measuring tools must be 4 to 1 or better than the tolerance of the characteristic being inspected, documented and included with the package. All design changes shall be submitted with supporting data for approval prior to initiating any change in fabrication.</p>

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37	<p>PART TRACEABILITY AND WHEN APPLICABLE SERIALIZATION SHALL BE MAINTAINED BY SUPPLIERS performing further processing. It is the supplier's sole responsibility to maintain the physical part traceability and/or serialization on each part, <i>through all secondary-processing operations</i>. Loss of traceability and/or serialization during these processes will result in the scrap replacement costs being the responsibility of the supplier.</p>
38	<p>FAR 52.246-2: The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.</p> <p>If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the Government shall bear the expense of Government inspections or tests made at other than the Contractor's or subcontractor's premises, provided, that in case of rejection, the Government shall not be liable for any reduction in the value of inspection or test samples.</p>
39	<p>DFAR 252.225-7014 & DFAR 252.225-7016: Preference for domestic specialty metals & Restriction on Acquisition of Ball and Roller Bearings Note: Applicable to any Order and all lower-tier subcontracts if Product supplied contains ball or roller bearings.</p>
40	<p>All electrical, electronic and electro-mechanical parts delivered and/or used in the manufacture of deliverable products shall be from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or their franchised distributor. Companies that procure non-electrical standard parts need to 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. The supplier shall have a counterfeit detection process that is similar to, and meets the intent of, SAE standard AS5553.</p>