

PO QUALITY REQUIREMENTS

- Q01 THIS FORM COVERS "SUPPLIER" AND SUBCONTRACTOR (COLLECTIVELY, SUPPLIER) WORK PERFORMED PER HI-SHEAR CORPORATION (HEREIN REFERRED TO AS HI-SHEAR) PURCHASE ORDER TERMS AND CONDITIONS AND QUALITY REQUIREMENTS LOCATED AT THE FOLLOWING WEBSITE: [HTTP://WWW.LISI-AEROSPACE.COM/DOCUMENTS/VENDOR_REQ_HS.PDF](http://www.lisi-aerospace.com/documents/vendor_req_hs.pdf). SUPPLIER SHALL FLOW DOWN TO THE SUPPLY CHAIN THE APPLICABLE REQUIREMENTS INCLUDING CUSTOMER REQUIREMENTS.
- Q02 SUPPLIER SHALL HAVE AN EFFECTIVE QUALITY SYSTEM THAT COMPLIES WITH REQUIREMENT'S OF ISO 9001/ AS9100 (OR EQUIVALENT), ISO 10012-1, ANSI NCSLZ540-1 (OR EQUIVALENT), AND ISO/IEC17025 (OR EQUIVALENT) FOR CALIBRATION FACILITIES. SUPPLIER SHALL MAKE SPECIFIED QUALITY DATA AND/OR APPROVED DESIGN DATA AVAILABLE IN THE ENGLISH LANGUAGE.
- Q03 SPECIAL PROCESS SUPPLIERS (CHEMICAL PROCESSING, HEAT TREAT NDT, ETC.), SHALL BE NADCAP CERTIFIED (WHERE REQUIRED) AND SHALL BE CAPABLE OF DEMONSTRATING THE ABILITY TO MEET HI-SHEAR REQUIREMENTS FOR SPECIAL PROCESSES. REQUIREMENTS SHALL INCLUDE, BUT ARE NOT LIMITED TO: KEY PARAMETERS, QPL'S (FROZEN PLANNING) AND PROCESS CONTROLS PER HI-SHEAR SPECIAL PROCESS SPECIFICATIONS REFERENCED ON ANY APPLICABLE HI-SHEAR PURCHASE ORDER.
- Q04 WORK UNDER THIS ORDER IS SUBJECT TO HI-SHEAR SURVEILLANCE AT THE SUPPLIER FACILITY. HI-SHEAR QUALITY ASSURANCE REPRESENTATIVE(S) MAY ELECT TO CONDUCT INSPECTION ON A SCHEDULED OR RANDOM BASIS AND INSPECTION MAY INCLUDE UP TO 100% AS DEEMED NECESSARY. THE SUPPLIER SHALL BE NOTIFIED VIA PURCHASE ORDER IF HI-SHEAR CORPORATION INSPECTION IS TO BE PERFORMED AT THE SUPPLIER FACILITY.
- Q05 HI-SHEAR, HI-SHEAR'S CUSTOMERS AND REGULATORY AUTHORITIES RESERVE THE RIGHT TO ACCESS THE APPLICABLE AREAS OF ALL FACILITIES, AT ANY LEVEL OF THE SUPPLY CHAIN, INVOLVED IN THE ORDER AND TO ALL APPLICABLE RECORDS.
- Q06 MANUFACTURING LOT INTEGRITY CONTROL MUST BE MAINTAINED THROUGH-OUT THE MANUFACTURING, HEAT TREATMENT, CHEMICAL AND COATING PROCESS CYCLE. A MANUFACTURING LOT IS A PRODUCTION LOT WHERE A QUANTITY OF PRODUCT OF IDENTICAL CONFIGURATIONS AND DIMENSIONS, FABRICATED FROM THE SAME HEAT MELT OF MATERIAL, PRODUCED, PROCESSED AND FINISHED AS ONE CONTINUOUS RUN, ORDER OR PART THEREOF AND PRESENTED FOR INSPECTION AT ONE TIME. ACCURATE AND SPECIFIC RECORDS OF EACH STEP IN THE PROCESS FOR EACH BATCH (INCREMENTAL PORTION OF A LOT) SHALL BE ESTABLISHED AND MAINTAINED. ANY ESCAPEMENT OR NON-CONFORMANCE DETECTED BY THE SUPPLIER DURING PROCESSING OR INSPECTION OF HI-SHEAR PRODUCT SHALL BE REPORTED IN WRITING TO HI-SHEAR PURCHASING AND QUALITY ASSURANCE IMMEDIATELY.
- Q07 ACCURATE PART COUNTS ARE AN INTRINSIC PART OF LOT INTEGRITY CONTROL. PARTS SHALL BE COUNTED UPON RECEIPT AND RECORDED ON RECEIVING DOCUMENTATION. PART COUNT DISCREPANCIES NOTED UPON RECEIPT MUST BE RESOLVED PRIOR TO STARTING THE JOB. PART COUNT IS REQUIRED PRIOR TO SHIPMENT AND RECORDED ON THE SHIPPING AND CERTIFICATION DOCUMENTS. PART COUNTS EXCEEDING HI-SHEAR SPECIFIED TOLERANCE RANGES REQUIRE A DOCUMENTED INVESTIGATION AND NOTIFICATION OF PART COUNT DISCREPANCIES PRIOR TO SHIPMENT.
- Q08 SUPPLIER SHALL CERTIFY THAT MATERIAL AND/OR FINISHED PARTS SHALL BE CONTROLLED, PROCESSED, INSPECTED AND TESTED AND SHALL MEET HI-SHEAR PURCHASE ORDER REQUIREMENTS, WITH ALL APPLICABLE RECORDS MAINTAINED ON FILE SUBJECT TO EXAMINATION. SUPPLIER FURTHER AGREES TO FURNISH CERTIFIED COPIES OF TEST AND/OR CONTROL DATA WHEN REQUESTED OR SPECIFIED ON THE HI-SHEAR PURCHASE ORDER.
- Q09 SUPPLIER SHALL RETAIN A CURRENT FIRST ARTICLE INSPECTION REPORT (FAIR) ON FILE WHICH SHALL BE PROVIDED UPON REQUEST. NOTE: WHEN APPLICABLE BY PO, AS9102 FORMAT MUST BE UTILIZED.
- Q10 SUPPLIER SHALL PROVIDE EVIDENCE OF ACCEPTANCE BY ITS QUALITY CONTROL DEPARTMENT ON ALL SHIPMENTS WITH A SIGNED, DATED CERTIFICATE OF CONFORMANCE WHICH STATES THAT THE PRODUCT MEETS ALL APPLICABLE DRAWINGS, LATEST SPECIFICATIONS REVISION AND PURCHASE ORDER REQUIREMENTS. EVIDENCE INCLUDES, BUT IS NOT LIMITED TO CERTIFIED PHYSICAL AND METALLURGICAL TEST REPORTS WHERE REQUIRED BY CONTROLLING SPECIFICATIONS, FULL RAW MATERIAL CERTIFICATIONS TRACEABLE TO THE MELT SOURCE, AND SPECIAL PROCESSING CERTIFICATIONS.
- Q11 SAMPLING PLANS SHALL BE BASED ON ZERO DEFECT (C=0) ACCEPTANCE CRITERIA. SUPPLIER SHALL SUBMIT THE SAMPLING PLAN UTILIZED TO PERFORM THE REQUIRED INSPECTIONS AND TESTS AT RECEIVING, IN-PROCESS AND FINAL INSPECTION.
- Q12 SUPPLIER SHALL MAINTAIN A SUPPLIER PROCESS CONTROL DOCUMENT (PCD) AND/OR SUPPLIER QUALIFICATION AS A "FROZEN PROCESS" PER LISI AEROSPACE DOCUMENT US-QP-0602, US-QW-0602 AND US-QW-0602-1. SUPPLIER AGREES NOT TO MAKE ANY CHANGE IN PROCESS, MATERIALS OR MANUFACTURING (PCD OR FROZEN PROCESS) DETAIL WHICH WOULD AFFECT THE PART OR ANY COMPONENT PART THEREOF, SPECIFICALLY WITH REGARD TO PART NUMBER IDENTIFICATION AND PHYSICAL OR FUNCTIONAL INTERCHANGEABILITY, PROCESS CONTROL/QUALIFICATION DOCUMENTS AND TRANSFER OF WORK ACTIVITY WITHOUT WRITTEN HI-SHEAR APPROVAL.
- Q13 PRODUCT SUBMITTED FOR EVALUATION AND APPROVAL BY HI-SHEAR'S PRELIMINARY MATERIAL REVIEW TEAM (PMRT) SHALL BE DOCUMENTED AND SUBMITTED BY THE SUPPLIER QUALITY REPRESENTATIVE TO HI-SHEAR PURCHASING DEPARTMENT AND QUALITY DEPARTMENT. ACCEPTANCE WILL BE COMMUNICATED THROUGH A DOCUMENTED APPROVAL FROM AN AUTHORIZED REPRESENTATIVE OF ONE OF THE FOLLOWING: HI-SHEAR'S ENGINEERING OR QUALITY ASSURANCE PRIOR TO CONTINUED PROCESSING OR DELIVERY.
- Q14 FOR SPECIAL PROCESSES (INCLUDING HEAT TREAT), APPROVED REWORK PROCEDURES SHALL BE IDENTIFIED BY THE SUPPLIER AND SUPPLIER MUST BE PREVIOUSLY CERTIFIED TO PERFORM THE REWORK. SUCH APPROVED REWORK PROCEDURES SHALL BE SUBMITTED IN WRITING TO THE HI-SHEAR'S QUALITY ASSURANCE REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH REWORK. NO REWORK TYPE (RE-SOLUTION OR RE-AUSTINIZING), SHALL BE PERFORMED WITHOUT WRITTEN APPROVAL FROM HI-SHEAR.
- Q15 NON-CONFORMING PRODUCT DETECTED BY HI-SHEAR RECEIVING INSPECTION OR DURING SUBSEQUENT EVALUATIONS SHALL BE PROCESSED PER INTERNAL NON-CONFORMING PRODUCT PROCEDURES. SUPPLIER SHALL RECEIVE A WRITTEN NOTIFICATION WHICH SHALL INCLUDE ALL PERTINENT DETAILS OF THE NON-CONFORMANCE. SUPPLIER SHALL FURTHER IDENTIFY AND PROVIDE FULL ACCOUNTING OF ANY WORK IN PROCESS, PRODUCT IN STORES, OR SHIPPED PRODUCT THAT MAY BE AFFECTED, AND SHALL TAKE ANY/ALL MEASURES NECESSARY TO ENSURE ALL NON-CONFORMING PRODUCT IS ISOLATED AND PREVENTED FROM UNINTENDED USE OR INSTALLATION. WHEN REQUIRED, SUPPLIER SHALL MAKE AVAILABLE ALL QUALITY DATA AND RECORDS PERTAINING TO A SPECIFIC NON-CONFORMANCE WITHIN (24) HOURS.
- Q16 UPON RECEIPT OF NOTIFICATION OF NON-CONFORMANCE, THE SUPPLIER SHALL (1) PERFORM CONTAINMENT ACTIVITIES, (2) IDENTIFY APPARENT CAUSE, (3) COMPLETE IMMEDIATE CORRECTIVE ACTION. ROOT CAUSE CORRECTION SHALL INCLUDE, BUT IS NOT LIMITED TO: PROCESS AND PROCEDURE REVIEW, TRAINING OR RE-TRAINING, MISTAKE-PROOFING, ETC. FAILURE TO RESPOND TO HI-SHEAR'S REQUEST FOR CORRECTIVE ACTION MAY ESCALATE FROM A FINAL NOTICE TO SUSPENSION, UP TO AND INCLUDING REMOVAL FROM HI-SHEAR'S APPROVED SUPPLIER LIST. PLEASE REFER TO THE WARRANTY AND INDEMNIFICATION CLAUSE OF HI-SHEAR'S TERMS AND CONDITIONS OF PURCHASE.
- Q17 HI-SHEAR SHALL ISSUE A SUPPLIER CORRECTIVE ACTION REQUEST (SCAR) FOR REPETITIVE NON-CONFORMANCES. REPETITIVE NON-CONFORMANCES ARE DEFINED AS NON-CONFORMANCES OF THE SAME TYPE OR DESCRIPTION THAT OCCUR WITHIN A NINETY (90) DAY PERIOD. REPETITIVE NONCONFORMANCES MAY ALSO BE DEFINED AS NON-CONFORMANCES THAT RECUR BEYOND THE NINETY (90) DAY PERIOD, DEPENDING ON THE CRITICALITY OF THE NON-CONFORMANCE AND THE EFFECT ON END ITEM REQUIREMENTS.
- Q18 SUPPLIER SHALL BE REQUIRED TO SUPPLY STATISTICAL PROCESS CONTROL (SPC) DATA FOR ANY KEY CHARACTERISTICS IDENTIFIED ON THE HI-SHEAR PURCHASE ORDER, HI-SHEAR DRAWINGS, OR PCD/FROZEN PLANNING.

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- Q19 SUPPLIER SHALL BE REQUIRED TO MAINTAIN ALL QUALITY DATA AND RECORDS PERTINENT TO WORK OR PROCESSES PERFORMED FOR HI-SHEAR. RECORDS SHALL INCLUDE, BUT ARE NOT LIMITED TO: HI-SHEAR PURCHASE ORDER, PURCHASE ORDER CHANGES, DRAWING(S), SUPPLIER CERTIFICATIONS, SUPPLIER SHOP CARDS/TRAVELERS, SPECIAL PROCESSES (PLATING, COATING, HEAT TREAT, BRAZING) LOT AND BATCH CONTROL DOCUMENTATION – PROCESSING LOGS, CHARTS, REPORTS, CERTIFICATIONS, ETC. SUPPLIER SHALL MAINTAIN QUALITY/PROCESS RECORDS ON FILE FOR AN INDEFINITE PERIOD. HI-SHEAR SHALL BE CONTACTED FOR APPROVAL BEFORE DESTROYING ANY RECORDS. ALL RECORDS SHALL BE MADE AVAILABLE FOR REVIEW BY HI-SHEAR AND HI-SHEAR CUSTOMER REPRESENTATIVES.
- Q20 MACHINING SUPPLIERS SHALL NOTIFY HI-SHEAR PURCHASING OF ANY OVER-RUN QUANTITIES REALIZED FROM HI-SHEAR SUPPLIED MATERIAL. MACHINING SUPPLIERS SHALL RETURN ALL UNUSED MATERIAL, GAGES, TOOLING AND EQUIPMENT AFTER WORK HAS BEEN COMPLETED. MACHINING SUPPLIERS SHALL NOT KEEP, STORE OR HOLD ANY HI-SHEAR OVER-RUN QUANTITIES WITHOUT EXPRESS WRITTEN CONSENT FROM HI-SHEAR.
- Q21 SUPPLIER IS RESPONSIBLE FOR PREVENTING FOREIGN OBJECT DAMAGE AND THE INTRODUCTION OF FOREIGN OBJECT DEBRIS (FOD) TO THE PARTS MANUFACTURED AND/OR PROCESSED AT THE SUPPLIER FACILITY. FOD IS A SUBSTANCE, DEBRIS OR ARTICLE ALIEN TO A SYSTEM WHICH MAY POTENTIALLY CAUSE DAMAGE TO THE PARTS AND INCLUDES, BUT IS NOT LIMITED TO, ANY LOOSE ARTICLES, SCRAP PARTS AND PRODUCT TEST PARTS, MIXED PARTS COUPONS, METAL TAGS, SCRAP OR METAL SHAVINGS.
- Q22 SUPPLIER MUST HAVE A PROCEDURE TO ASSURE THAT PROCURED MATERIALS ARE AUTHENTIC AND IN CONFORMING THROUGHOUT THE SUPPLY CHAIN RECEIVED FROM LEGALLY AUTHORIZED SUPPLIERS THROUGH THE USE OF CONTROLS SUCH AS INSPECTION, MATERIAL TESTING AND VALIDATION OF THEIR SUPPLIER'S SUBMITTED DOCUMENTATION. THE PROCEDURE MUST ADDRESS AND MEET THE REQUIREMENTS OF AS6174 COUNTERFEIT MATERIAL ASSURING ACQUISITION OF AUTHENTIC AND CONFORMING MATERIAL. IN THE EVENT OF COUNTERFEIT MATERIAL BEING DETECTED, SUPPLIER SHALL IMMEDIATELY REPORT FINDINGS TO HI-SHEAR.
- Q23 ANY ESCAPEMENT OR NON-CONFORMANCE DETECTED BY SUPPLIER DURING PROCESSING, INSPECTION OR FOR ANY PREVIOUSLY DELIVERED HI-SHEAR PRODUCT SHALL IMMEDIATELY BE REPORTED IN WRITING TO HI-SHEAR'S PURCHASING DEPARTMENT AND QUALITY ASSURANCE DEPARTMENT.
- Q24 SUPPLIER SHALL NOT RELOCATE TO A US COUNTRY OR NON-US COUNTRY (E.G. US TO US, US TO NON-US, NON-US TO US, NON-US TO NON-US) ANY CONTRACTED PART, ASSEMBLY OR COMPONENTS WITHOUT WRITTEN NOTIFICATION AND ACCEPTANCE FROM HI-SHEAR'S PURCHASING DEPARTMENT.
- Q25 ANY DEFECTS THAT WILL AFFECT FIT, FORM, FUNCTION OR ARE IN EXCESS OF THOSE ALLOWED BY THE PRODUCT STANDARD, REFERENCED SPECIFICATIONS OR HI-SHEAR SPECIAL PROCESS SPECIFICATIONS SHALL BE CAUSE FOR REJECTION OF THE SPECIFIC DELIVERY.
- Q26 SUPPLIER WILL IDENTIFY ALL MATERIALS AND ARTICLES WHICH HAVE DEFINITE CHARACTERISTICS OF QUALITY DEGREDDATION WITH AGE AND ENVIRONMENT. SUPPLIER SHALL AFFIX THIS INFORMATION DIRECTLY ON THE MATERIAL CONTAINER OR ARTICLE. THE IDENTIFICATION WILL INDICATE THE USEFUL LIFE WAS INITIATED AND THE DATE OR CYCLE AT WHICH THE LIFE WILL BE EXPENDED. WHEN ENVIRONMENT IS A FACTOR IN DETERMINING USEFUL LIFE, THE IDENTIFICATION WILL INCLUDE THE STORAGE CONDITION (I.E. TEMPERATURE, HUMIDITY, ETC.) REQUIRED TO ACHIEVE THE STATED LIFE. UNLESS OTHERWISE DIRECTED BY THE PURCHASE ORDER, A MINIMUM OF 85% OF THE APPLICABLE MATERIAL/ARTICLE SHELF LIFE SHALL REMAIN UPON RECEIPT BY HI-SHEAR.
- Q27 HI-SHEAR MUST BE NOTIFIED PRIOR TO ANY MAJOR CHANGE IN OPERATIONAL SEQUENCE, PROCESS FLOW, NEW OR MODIFIED EQUIPMENT OR CHANGE IN LOCATION, QUALITY SYSTEMS, OR SENIOR MANAGEMENT THAT COULD IMPACT PRODUCT CONFORMITY AS DETAILED IN THE PURCHASE ORDER, DRAWING AND SPECIFICATION REQUIREMENTS, ETC.
- Q28 SUPPLIER SHALL COMPLY WITH THE AS/EN/JISQ 9100 REQUIREMENTS AND 14 CFR PART 21.2 REGARDING THE APPLICATION OF THE ACCEPTANCE AUTHORITY MEDIA REQUIREMENTS (AAM). SUPPLIER SHALL, WITHIN ITS ORGANIZATION AND SUPPLY CHAIN, ENSURE THAT THE USE OF AAM IS CLEARLY DEFINED WITHIN ITS QUALITY MANAGEMENT SYSTEM (QMS). SUPPLIER SHALL, UPON REQUEST, BE ABLE TO DEMONSTRATE EVIDENCE OF COMMUNICATION TO ITS EMPLOYEES AND TO ITS SUPPLY CHAIN. USE OF AAM SHALL BE CONSIDERED AS A PERSONAL WARRANTY OF COMPLIANCE AND CONFORMITY. SUPPLIER SHALL MAINTAIN COMPLIANCE TO THE AAM REQUIREMENTS BY ASSESSING ITS PROCESS AND SUPPLY CHAIN AS PART OF ITS INTERNAL AUDIT ACTIVITIES. THE AREAS OF FOCUS SHALL INCLUDE BUT ARE NOT LIMITED :
- A. AUTHORITY MEDIA APPLICATION ERRORS (I.E. OMISSION, TYPOS, LEGIBILITY, ETC.)
 - B. AUTHORITY MEDIA APPLICATION UNTIMELY USE (I.E. DOCUMENTATION IS NOT COMPLETED AS PLANNED, "STAMP/SIGN AS YOU GO", ETC.)
 - C. AUTHORITY MEDIA APPLICATION MISREPRESENTATION (I.E. UNCERTIFIED PERSONNEL, FALSIFICATION OF DOCUMENTATION, WORK NOT PERFORMED AS PLANNED, ETC.)
 - D. AUTHORITY MEDIA APPLICATION TRAINING DEFICIENCIES (I.E. ETHICS, CULTURE AWARENESS, PROPER USE OF AUTHORITY MEDIA, ETC.)