

## TPI Arcade, Inc. Quality Assurance Clauses Form QAD006 Rev. 07/17/2023

All purchase orders are subject to the following referenced provisions as specifically noted on each line item of each individual purchase order.

### QC-1 AS9100 or ISO9001

The seller shall provide and maintain a system that complies with Specification ISO 9001-2015 'Quality Management System - Requirements' or AS9100 "Aerospace Standard." Notwithstanding the provisions of this clause, the seller is in no way relieved of the final responsibility to furnish the supplies or services specified.

### QC-2 INSPECTION REQUIREMENTS & NON-CONFORMING PRODUCT

The seller maintains an inspection system to ensure that all items furnished have been inspected and/or tested. The seller is responsible for material acceptability and performance. Supplier shall notify TPI Arcade, Inc. of any non-conforming process or product and obtain approval for disposition, and any major process changes. Q.A. may require corrective action for any products received that do not conform to all required specifications and/ or referenced documents. Q.A. shall determine disposition of rejected items & advise purchasing, who shall undertake all required subsequent actions. If a Supplier Corrective Action Request (CAR) is issued, the supplier must respond within time specified on CAR; or they will be unapproved for further procurements until the CAR is satisfactorily resolved.

The following is required documentation to be transmitted to TPI Arcade upon the start of production of parts that have already had an accepted First Article submission and are a continuation of production of said part. An acceptable format for such documentation can be the AS9102 form or the format that was used for initial First Article Report.

#### For Machining Sub-Contractors

- For Jobs that have been idled for more than 5 days or have had fixtures taken off of the machine and are being placed back in and re-introduced into back into production.
  - A dimensional check will be reported on the first part. This will ensure that the completed part still conforms to all the dimensions and notes of the part print.
- To be transmitted to TPI Arcade will be a copy of all the completed results within 1 day of starting the job.
  - CMM Report for finish part print dimensions
  - Checks for Diameter and depth of holes per tool being used. Go/Nogo checks
    - This may be a copy of your inspection check at the machine by your operator.
  - Checks for surface finish if required by the part print
- Results found within specification will be noted with an OK on the report.
- Results found outside of part print will be noted as NOK along with the amount of deviation outside of part print specification.

#### For Painting Sub-Contractors

This will apply on all First Article Inspection for a brand-new job and anytime a job has been idle for more than 2 years and now started again.

- Sub-Contractor will provide an inspection report indicating compliance to the part print specification(s)
  - This includes readings from Mil Thickness checks if applicable.
  - All FAI's will have photographs of the part from all 6 sides submitted to the Responsible TPI Arcade Project Engineer
  - Primer and paint manufacturer's part numbers, Lot Numbers and expiration dates of those lots used.

### QC-3 SOURCE SURVEILLANCE BY TPI ARCADE, INC. QUALITY REPRESENTATIVE

All items covered by this Purchase Order are subject to source surveillance by a TPI Arcade, Inc. Quality Representative. This will include surveillance of the seller's procedures, and facilities. The seller shall furnish, at no cost to Buyer, necessary facilities and equipment, supply data, and perform tests as required by applicable drawings, specifications, and inspection instructions under surveillance of the TPI Arcade, Inc. Quality Representative. Evidence of surveillance shall accompany each shipment.

### QC-4 SOURCE INSPECTION (PHYSICAL INSPECTION BY TPI ARCADE, INC.)

All items covered by this Purchase Order are subject to inspection at the seller's facility by a TPI Arcade, Inc. Quality Representative prior to shipment. The seller shall furnish, at no cost, acceptable facilities and equipment to the TPI Arcade, Inc. Representative for their inspection. The seller shall provide no less than forty-eight (48) hours advance notice to the Buyer to permit scheduling of source inspection. Evidence of source inspection shall accompany each shipment.

### QC-5 FIRST ARTICLES AND PRODUCTION TOOLING

The First Article produced under this order shall be submitted for TPI Arcade, Inc. Inspection prior to making further shipments. This Inspection is solely for TPI Arcade, Inc. convenience and shall not waive TPI Arcade, Inc. right to reject any parts not conforming to this order. Acceptance of production tooling on this Purchase Order shall be contingent upon inspection and acceptance of the submitted 1st Article. Said 1st Article must conform to all design requirements, detail specifications and tolerance limits of Specification Control Drawings or similar documents submitted with and referenced within this Purchase Order. Supplier shall safely maintain all referenced records and documents for a minimum of ten years or until advised by TPI Arcade, Inc. to either return or discard them.

### QC-6 FIRST ARTICLES – DESIGNATED QUALITY REPRESENTATIVES

For those suppliers to TPI Arcade that have Designated Quality Representative (DQR) status only the first article inspection (FAI) report need be submitted. Acceptance of production tooling on this Purchase Order shall be contingent upon inspection and acceptance of the submitted FAI. Said 1st Article must conform to all design requirements, detail specifications and tolerance limits of Specification Control Drawings or similar documents submitted with and referenced within this Purchase Order. Supplier shall safely maintain all referenced records and documents for a minimum of ten years or until advised by TPI Arcade, Inc. to either return or discard them.

### QC-7 TEST BARS

When test bars are required as part of TPI Arcade, Inc. obligation to fulfill their purchase order to the end user, the supplier shall be required to apply 2 legible test bar results to specified heats or production runs in accordance to TPI Arcade, Inc. need. This shall be provided to TPI Arcade, Inc. when shipping papers are requested.

### QC-8 CHEMICAL TEST REPORTS – SEE QC-7

### QC-9 PHYSICAL TEST REPORT – SEE QC-7

### QC-10 CHEMICAL AND/OR PHYSICAL TEST REPORTS see QC-7

Each shipment, when required, must be accompanied by a legible and reproducible copy of all chemical and/or physical test reports identifiable with test parameters and products submitted. These reports must contain the signature and title of the authorized representative of the agency performing the test and must assure conformance to specification requirements.

### QC-11 ENVIRONMENTAL TEST REPORTS

Each shipment is accompanied by one (1) legible and reproducible copy of reports of actual test results identifiable with test parameters and products submitted. These reports contain the signature and title of the authorized representative of the agency performing the test and must conform to the specification. The report must also be submitted by e-mail to TPI Arcade quality dept, dbrown@tpicast.com.

### QC-12 STATEMENT OF CONFORMITY AND PROCESS CONTROL

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Each shipment must be accompanied by a Certificate of Conformance referencing the P.O. & shipper number, that ensures conformance to all referenced material and process specifications. Supplier must notify and obtain concurrence from TPI Arcade, Inc. for any changes in either materials or processes specified on referenced Purchase Order.

### **QC-13 FUNCTIONAL TEST REPORTS**

Functional tests are defined as operational inspections, e.g. mechanical, electronic, hydraulic, etc. Each shipment shall include one legible and reproducible test report of actual results identifiable with test parameters and products submitted. These reports must contain the signature and title of the authorized representative of the agency performing the test and must assure conformance to specified requirements. The report must also be submitted by e-mail to TPI Arcade, Inc. quality dept, [dbrown@tpicast.com](mailto:dbrown@tpicast.com).

### **QC-14 PROCESS CHANGES**

Once first article approval has been achieved all production processes are considered frozen. After first article approval no process changes may be made without approval from TPI Arcade, Inc. This includes changes in suppliers or changes in manufacturing facility location.

### **QC-15 NONDESTRUCTIVE TEST REPORTS**

Each shipment must be accompanied by a legible and reproducible copy of actual Nondestructive test results identifiable with acceptance requirements and material submitted. These reports must contain the signature and title of the authorized representative of the agency performing the inspection and must assure conformance to specified requirements. The report must also be submitted by e-mail to TPI Arcade, Inc. quality dept, [dbrown@tpicast.com](mailto:dbrown@tpicast.com).

### **QC-16 CERTIFICATION OF X-RAY**

All parts requiring radiographic certification will be submitted to TPI Arcade, Inc. approved X-Ray laboratory and processed in accordance with TPI Arcade, Inc. and/or Government specifications and standards. X-Ray findings will be reported on an appropriate form, including the name of the reader and the signature and title of an authorized laboratory representative. The X-Ray film and a legible and reproducible copy of the report must accompany the material. An adequate method of identifying and cross referencing each film exposure report and item must be provided.

### **QC-17 SOURCE INSPECTION - GOVERNMENT**

Government inspection is required prior to shipment from your plant. When material is ready for inspection or, if practical, ten (10) days in advance thereof notify the government representative who normally services your plant. Upon receipt of this order, promptly notify the Government Representative so that inspection can be accomplished.

### **QC-18 FINAL ACCEPTANCE**

Final acceptance will be based on TPI Arcade, Inc. inspection and testing results at destination.

### **QC-19 MATERIAL TRACEABILITY**

The supplier shall certify that material furnished is from the same heat, lot or batch. as applicable. Supplier identifies each item, package, or container of shelf life material with its cure or manufacture date, expiration date, and special storage and handling conditions in addition to the standard identification requirements. Where shipments contain parts with different cure dates, are from different heats, lots or batches, separation into sub-lot and separate certification of sub-lots is required, one (1) copy of certification shall be included with each shipment for each lot or sublot.

The report must also be submitted by e-mail to TPI Arcade, Inc. quality dept, [dbrown@tpicast.com](mailto:dbrown@tpicast.com).

### **QC-20 TPI ARCADE, INC. FURNISHED MATERIAL**

The supplier shall certify that material used in fabrication is the material furnished by TPI Arcade, Inc..

### **QC-21 INSPECTION AND/OR PRODUCTION TOOLING**

Seller is held responsible for the protection, calibration and care other than normal wear of all Production and/or Inspection tooling furnished by TPI Arcade, Inc. for use in the performance of purchase order requirements. All tooling shall be subject to TPI Arcade, Inc. surveillance and/or inspection upon notice. Said tooling, or replacement tooling of equal quality, shall be returned in an acceptable condition upon demand or notice.

### **QC-22 CALIBRATION**

All items furnished under this P.O. shall be inspected using calibrated inspection tools. Standards used are to be traceable to the NIST (National Institute of Standards and Technology), ANSI-Z540 or ISO 10012-1 current revisions.

### **QC-23 RIGHT OF ACCESS**

Supplier shall grant right of entry and access by TPI Arcade, Inc., their customer and regulatory agencies to all facilities involved in this order and to all applicable records at any level of the supply chain. A minimum of 24 hours' notice will be given to supplier prior to arrival of TPI Arcade, Inc., their customer and regulatory agencies.

### **QC-24 PART IDENTIFICATION REQUIREMENTS**

Supplier ensures that all items are permanently and legibly identified. Identification requirements may include the following, as specified by purchasing or supplier documents: part number and revision level, manufacturer's identification, lot or date code, serial number, and quality.

### **QC-25 INSPECTION RECORDS**

Documented evidence in the form of inspection records indicating actual dimensional results in accordance with drawings, specification and or purchase order requirements must be accompanied with each shipment. The report must also be submitted by e-mail to TPI Arcade quality dept, [dbrown@tpicast.com](mailto:dbrown@tpicast.com).

### **QC-26 RECORD RETENTION**

All quality records must be maintained for a minimum period of 10 years. TPI must be notified prior to destroying any records older than 10 years as some customers may require longer retention. If approve by TPI to destroy Documents and records must be disposed of in accordance with document markings. i.e. EAR, ITAR

### **QC-27 SERIALIZATION**

All parts must be serialized with a 3 digit serial number in a specified location. After 999 is reached resume with A001. When A999 is reached resume with B001 etc. Serial numbers can be etched with a vibratory marker, machined in or marked with a dot-peen marker. Other methods may be used with prior approval from TPI Arcade.

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### **QC-28 DEVIATION REQUESTS**

TPi Arcade does not have design control and therefore cannot directly approve deviations from the drawing. Requests to do so must be made in writing to TPi Arcade. We will in turn request approval from our customer.

### **QC-29 FOD (Foreign Object Detection)**

The supplier shall develop and maintain a Foreign Object Debris/Damage (FOD) prevention program to prevent introduction of foreign objects into any item delivered under this purchase order.

### **QC-30 REPROCESSING/REWORK/REPAIR**

Reprocessing which is defined as additional processing to bring a part to full compliance with the drawing is permitted. Rework or Repair which is defined as special processing required to make a part functional requires permission from the end customer because TPi Arcade is not design responsible. Examples of rework and repair are helicoils to repair defective threads, welding or plugging etc.

### **QC-31 FLOW DOWN TO 2<sup>ND</sup> TIER SUPPLIERS**

Whenever TPi Arcade's supplier subcontracts any work covered by this PO to a sub tier supplier all quality, confidentiality and records retention requirements called out in this PO must be flow down to the sub tier supplier. No part of this PO may be subcontracted to another supplier without TPi Arcade's permission.

### **QC-32 AS9102 INSPECTION FORMAT REQUIRED**

The first article inspection for the parts covered by this PO must be submitted in AS9102 rev B format. Blank AS9102 inspection forms can be obtained from TPi Arcade Quality department [dbrown@tpicast.com](mailto:dbrown@tpicast.com).

### **QC-33 ITAR AND EXPORT CONTROLS**

The parts and technical data covered by this PO are controlled under ITAR and United States Export Regulations and may not be divulged or exported to a foreign person either in the US or abroad without authorization of the US Dept. of State or the US Dept. of Commerce.

### **QC-34 Counterfeit Parts Prevention Program**

Must maintain a Counterfeit part program to an industry standard. Must prevent the use of counterfeit parts/material

### **QC-35 Interactions with the organization**

The external providers' interactions with the organization will be verbal or in writing and may include, but not limited to, quoting, purchase orders, inquires, non-conforming issues, and corrective actions. All communications must be submitted to the TPi Purchasing Manager.

### **QC-36 Safety and Ethical Behavior**

Ensuring that persons are aware of:

- their contribution to product or service conformity;
- their contribution to product safety;
- the importance of ethical behavior. Per TPI from # [HRM008](#), copy can be found on TPi Web page

### **QC-37 DFARS & NIST Compliance**

NIST 800-171 compliant

### **QC-38 Competence**

Suppliers shall be able to demonstrate their employees have the necessary competence for assigned responsibilities based on training, education and/or experience.

### **QC-39 Monitoring**

Suppliers shall be capable of meeting TPi Arcade quality and delivery requirements as indicated on the Purchase Order. TPi Arcade will monitor quality and on-time delivery data for key suppliers and communicate issues requiring formal corrective action in accordance with TPi Arcade supplier corrective action process.

### **QC-40 External Providers**

Use customer-designated or approved external providers, including process sources (e.g., special processes)

### **QC-41 Use of statistical techniques**

Suppliers shall apply effective statistical process controls when specified on the Purchase Order.

### **QC-42 Amazon Robotics Supplier Quality Manual**

Suppliers shall comply with the Amazon Robotics Supplier Quality Manual – Document #960-0015\_R08 Dated February 23, 2017

### **QC-43 Serial Number Recording**

Sub-con must record SN's of each part on associated report/certificate.

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**Revision History:**

Paragraph Number	Revision Date	Description (brief)
Entire Document	6/22/2018	Original release
QC-42	3/08/2019	Added Clause
QC-2	12/1/2020	Ammended QC-2 to add in First PC inspection Data for machining sub contractors and Painter Responsibilities on jobs idled over a period to time
QC-43	7/17/2023	Added new "SN Recording"