

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

1.0 Purpose

The purpose of this document is to communicate the standard practices of MIQ Partners to its Suppliers and sub-tier Suppliers in order to ensure a consistent quality of deliverable goods. The supplier’s commitment to product quality, conformity, product safety and ethical behavior are critical to ensuring a mutually beneficial relationship between MIQ Partners and one of its most valuable assets, an effective Supplier base. This Process Instruction provides all the necessary guidelines to ensure that relationship.

2.0 Forms, Documents & Attachments

- 2.1 TSS4-QA-EER-01, “Engineering Evaluation Request”
- 2.2 TSS01-03-P4, “Corrective Action”
- 2.3 AS9102, “Aerospace First Article Inspection Forms”
- 2.4 TSS1-QA-SSA-01, “Supplier Survey”

3.0 Standard Quality Terms and Conditions

- 3.1 The hierarchy of purchase documentation is as follows:
 - 3.1.1 Purchase Order
 - 3.1.2 Engineering Drawing,
 - 3.1.3 This document (TSS3-PI-SQAR-01)
- 3.2 The specification “Make Complete” on the Purchase Order means that **all** conditions required by the Purchase Order, Engineering Drawing, and TSS3-PI-SQAR-01 apply.
- 3.3 In the case where the Purchase order or MIQ supplied drawing does not specify a tolerance allowance or acceptable visual acceptance criteria, the requirements specified in Appendix B apply.
- 3.4 The requirements of the Purchase Order, Engineering Drawing and this document, must be flowed down to all suppliers and their sub-tier suppliers.
- 3.5 After approval no process changes, method changes or equipment changes are permitted without prior consent from MIQ.
- 3.6 Failure to use MIQ mandated/supplied documentation may be cause for immediate rejection of the products and/or correspondence.
- 3.7 Supplier agrees not to disclose technical content contained in the procurement documentation or deliverable goods/services unless approved by MIQ.
- 3.8 The supplier must have appropriate gauging to verify the conformity of the manufactured item.
- 3.9 MIQ, its customers, and appropriate regulatory authorities have the right of access to the Supplier’s facility to determine and verify the quality of contracted work, materials, and all applicable records.
- 3.10 Suppliers must use customer approved special process resources when required and obtain MIQ approval prior to facility location changes and or changes to the processes.
- 3.11 Suppliers may be subject to Supplier Quality audits to assess processing and Quality compliance capabilities. The Supplier qualification process may utilize the Supplier Audit form as a tool to assess the Supplier’s capabilities.
- 3.12 It is the responsibility of the Supplier to ensure they are working to the latest revisions of all documents referenced in requirement 3.1 at the time of the order. Contact the MIQ Purchasing Agent for revision clarification.
- 3.13 Shipments received more than three (3) working days prior to the Purchase Order due date may be rejected at the discretion of the Buyer.
- 3.14 Parts must be packaged with sufficient packaging material to preclude damage during transit. Metal-to-metal contact is prohibited at all times unless the material/surface is subject to subsequent machining by MIQ.
- 3.15 Only authorized agents of MIQ Partners are permitted to commit any company funds. The seller is hereby notified verbal orders and/or purchase orders and amendments by unauthorized personnel may result in nonpayment and potential disqualification as a supplier. Contact MIQ Partners for a complete listing of authorized agents.
- 3.16 Acceptance of a MIQ Purchase Order constitutes acceptance of all terms and conditions stated in this document unless a written waiver is granted under the mutual concurrence of MIQ Purchasing and Quality representatives. In the event the standard terms and conditions of the Supplier conflict with the terms and conditions of the Purchase Order and/or this document, the MIQ terms and conditions shall prevail.

Reviewed By:	Evan Nichols	Date:	12-14-18	Approved By:	Dan Powers	Date:	12-14-18
--------------	--------------	-------	----------	--------------	------------	-------	----------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

3.17 MIQ requirements shall not be limited by any third party or "Industry Standards" unless specifically covered by written waiver prior to acceptance of the contract.

4.0 Standard Purchasing Terms and Conditions

PURCHASING TERMS AND CONDITIONS

(1) **ACCEPTANCE**

Seller may accept this order in writing, or by the commencement of any work, or the performance of any services or the shipment of any goods purchased under this order. The acceptance by seller of this order is limited to the terms of the order. Any additional or different terms included by Seller are rejected unless expressly approved in writing by Buyer.

(2) **PACKING AND TRANSPORTATION**

Seller shall suitably pack, mark, and ship all materials according to common carriers' requirements (to secure the lowest transportation costs). No additional charges shall be made to buyer for packing, boxing, marking, shipping, drayage, or storage unless authorized in this order or in a separate writing by Buyer. Unless specified in this order, Buyer will not accept a COD shipment.

(3) **DELIVERY**

Deliveries shall be made in the quantities and at the times specified in this order or in supplementary schedules furnished by Buyer. Time is of the essence. Buyer may change delivery schedules or temporarily suspend scheduled shipments. If materials are shipped or received in advance of schedule, Buyer may return them to Seller at Seller's risk and expense. Seller shall not be liable for delays or defaults in delivery due to causes beyond its control and without its fault or negligence. If at any time Seller has reason to believe delivery will not be made as scheduled, Seller shall immediately give written notice to Buyer, stating the cause and duration of the anticipated delay. If delivery is not made as specified in this order, in addition to any other right or remedies, Buyer may terminate the contract as to all or any portion of the goods ordered, purchase substitute goods elsewhere and charge Seller with any loss incurred.

(4) **REJECTIONS**

If any of the goods are found at any time to be defective in material or workmanship, or otherwise not in conformity with the requirement of this order, Buyer, in addition to any other rights which it may have under warranties or otherwise, may at its option correct or have corrected the nonconformity at Seller's expense, or reject and return such goods at Seller's expense, such goods not to be replaced without suitable written authorization from Purchaser. MIQ must be notified immediately of nonconforming product detected prior to shipment and obtain disposition.

(5) **INSPECTION**

Work performed and material received is subject to inspection and rejection by Buyer. Payment for material or work shall not constitute acceptance. Rejected materials will be held at Seller's risk for a reasonable time and will be returned or disposed of according to Seller's instructions. The net proceeds of any disposition will be credited to Seller's account. No returned material will be replaced without Buyer's written replacement order.

(6) **MODIFICATION OF ORDER**

1. Buyer reserves the right to make changes in specifications or requirements of this order at any time. Buyer shall have the right to make changes in this order, but no additional charge will be allowed unless authorized in writing by Buyer. If such change affects delivery or the amount to be paid by Buyer, Seller shall notify Buyer immediately, and negotiate an adjustment in accordance with this "Modification of Order" clause.

2. In any event the maximum liability of the Buyer for obsolescence, scrap page, and/or rework resulting from any change shall be limited to the materials and parts in process at the time of the change and when such parts are within the Seller's normal manufacturing cycle required to meet the established delivery schedule. Buyer shall have no liability hereunder for cost of obsolescence, scrap or rework of materials and parts which Seller has released for manufacture in advance of Seller's normal manufacturing process.

(7) **WARRANTY AS TO QUALITY**

Reviewed By:	Evan Nichols	Date:	12-14-18	Approved By:	Dan Powers	Date:	12-14-18
<i>The personnel, noted above, have the responsibility for modifications to this document.</i>							

MIQ	Supplier Quality Assurance Requirements	Control Number:	
		TSS3-PI-SQAR-01	
		Revision Date:	Revision Level:
		10/13/20	15

Seller warrants that all materials and work covered by this order will: (a) be of good and merchantable quality and workmanship and free from defects; (b) conform to the drawings, specifications, descriptions, and samples furnished or specified by Buyer; (c) if a product of Seller is produced according to Seller's specifications, be suitable for its intended purposes. Without Buyer's written consent, no materials may be substituted for those specified; (d) free and clear from all liens and encumbrances; (e) fit for their particular purpose, if Seller knows or has reason to know of such particular purpose. The Warranties contained in this paragraph are in addition to the warranties provided by law including, without limitation, the Uniform Commercial Code.

(8) WARRANTY OF COMPLIANCE WITH LAW

Seller warrants and represents that the materials and goods covered by this order will be produced, distributed, shipped, packaged and/or performed in compliance with all applicable federal, state and local laws and regulations, including without limitation, laws, rules and regulations including, without limitation, laws dealing with fair labor standards and public contracts. On Buyer's request, Seller agrees to furnish satisfactory evidence of compliance.

(9) SUSPENSION OF SHIPMENTS AND CANCELLATION WITHOUT CAUSE

On the Buyer's request, Seller shall immediately suspend shipments of materials and performance of work for reasonable periods. Also, the Buyer reserves the right to cancel this order in whole or part at any time without cause. Any extensions in times of delivery or performance, and any losses or damages resulting from suspension of shipments or partial or total cancellation of the order, shall be equitably adjusted between Buyer and Seller. The Buyer shall not be liable for failure to accept delivery of materials or performance of work due to causes beyond Buyer's control, including without limitation fire, flood, or other casualty, court orders, acts of governmental authorities, or strikes or other work stoppages. Seller will not be entitled to recover any incidental or consequential damages upon any cancellation or breach by Buyer under or related to this order.

(10) CANCELLATION FOR CAUSE

Buyer may cancel this order in whole or part in the event of Seller's breach of any of the terms or conditions of the order, including without limitation the failure of materials or work to conform to the warranty as to quality under Section (7) or Seller's failure to make delivery as required under Section (3). Buyer may also cancel this order if Seller: (a) becomes insolvent; (b) files a voluntary petition in bankruptcy; (c) has an involuntary petition in bankruptcy filed against it; (d) has a receiver or trustee appointed for it; or (e) makes an assignment for the benefit of creditors.

(11) BUYER'S RIGHTS ON CANCELLATION FOR CAUSE

In the event of cancellation under Section (10) and without prejudice to any other rights or remedies, Buyer has the right to: (a) refuse to accept delivery of material or performance of work; (b) return to Seller any materials already accepted, recover any payments made for the same and for freight, storage, handling, and other expenses incurred, and be relieved of liability for any further payments to Seller; (c) recover any payments made to Seller for undelivered or returned materials or work to be performed; and (d) purchase elsewhere and charge Seller with any resultant losses.

(12) ASSIGNMENT: PARTIES AND SUCCESSORS BOUND

This order may not be assigned by Seller in whole or part without Buyer's written consent. This order and its terms and conditions are binding on the parties and their successors and assigns.

(13) PRICE

(A) PERMISSION REQUIRED FOR PRICE CHANGE

All prices listed are firm and shall not be changed without Buyer's prior written permission.

(B) BUYER TO BENEFIT FROM PRICE DECREASE

In the event of a decrease in Seller's published prices for the products covered by this contract, the contract prices shall be reduced accordingly. The reduced price shall apply to all shipments made after the price change.

(C) EXTRA CHARGES

No charges of any kind shall be added to the prices and charges appearing on the face of this [order/contract], [without Buyer's written permission/unless the parties have agreed to such extra charges in advance].

(D) CLAIMS FOR EXTRA COMPENSATION

Before proceeding with any work or shipment involving potential claims by Seller for compensation above the prices and charges specified in this order, Seller shall submit to Buyer an itemized statement supporting the extra compensation and if Buyer desires to have the work done or goods furnished at the increased price or charge, Buyer's or purchasing agent will issue written instructions to Seller. Absent such written instructions to proceed, no claim for extra compensation will be allowed.

(E) CHARGES FOR SPECIAL TOOLING, DESIGN, OR RELATED SERVICES

Reviewed By: Evan Nichols	Date: 12-14-18	Approved By: Dan Powers	Date: 12-14-18
----------------------------------	-----------------------	--------------------------------	-----------------------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

All of Seller's invoices covering charges for special tooling or equipment, or design, engineering, research, or related services, shall be accompanied by a detailed list showing the charges for these items. All such invoices shall be net 30 days.

(14) GOVERNING LAW

Buyer and Seller hereby submit themselves to the Jurisdiction of the State of Ohio in connection with any cause of action arising under this contract. The validity, performance, construction and effect of this contract shall be governed by the laws of the State of Ohio.

(15) CONFIDENTIALITY

All information which Buyer has divulged or may divulge to the Seller and any information relating to the product which may have come into the possession of the Seller in the course of carrying out Buyer's purchase order shall be treated by the Seller in confidence and shall not without prior written consent of Buyer, be disclosed to any third parties, or be used for any purpose other than for the execution of this order.

5.0 Definitions

- 5.1 Attribute data – Part analysis, usually associated with attribute gaging (Go/No-Go type Plug, Thread) where compliance is measured in terms of Pass/Fail, Accept/Reject.
- 5.2 Bubbled Drawing (Ballooned Drawing) – An Engineering Drawing that has each characteristic numbered sequentially. The characteristics include all drawing dimensions, notes, referenced specifications, specialized treatments (coating, plating, heat treatment, etc.) and material type.
- 5.3 Buyer – MIQ and its various business units (see Organization).
- 5.4 Capability Study – An analysis of a process that verifies the ability of that process to meet the specifications. The results of the study are usually expressed in terms CP, Cpk, or Ppk.
- 5.5 Critical Characteristic – A dimension on the drawing that if not within the specified tolerance band could compromise safety and/or result in product failure (see KPC and CTQ). The critical characteristic may be specified in the Purchase Order or the Engineering Drawing.
- 5.6 CTQ (Critical to Quality) – A feature that is critical to the function of the part or assembly (see KPC and Critical Characteristic). The CTQ may be specified in the Purchase Order or the Engineering Drawing.
- 5.7 Customer – The entity originating the Purchase Order to MIQ.
- 5.8 Engineering Drawing – Graphical or digital representation of the finished product to be supplied to MIQ. This term also encompasses any notes and/or specifications referenced therein.
- 5.9 FAIR – First Article Inspection Report. An inspection report that documents the compliance of the supplied part to the part print for all features, notes, and specifications. This includes material specifications and finishes (paint, plating, coatings, anodize, etc.)
- 5.10 Gage R&R – A measuring system analysis (MSA) the analyzes the variation of measurements of a gage (repeatability) and the variation of measurements by operators (reproducibility) in order to separate the variation due to the measurement system from the variation due to the process.
- 5.11 GD&T (Geometric Dimensioning & Tolerancing) – A drafting tool used to control part geometry. Symbols are used to define location, form, profile, orientation, and runout.
- 5.12 KCC (Key Control Characteristic) – A feature that affects the control of the KPC. The KCC (see major characteristic) may be specified in the Purchase Order or the Engineering Drawing.
- 5.13 KPC (Key Product Characteristic) – A feature that is critical to the function of the part or assembly (see Critical Characteristic and CTQ). The KPC may be specified in the Purchase Order or the Engineering Drawing.
- 5.14 Major Characteristic – A dimension on the drawing that if not within the specified drawing tolerance could affect fit, form, or function (see KCC). The major characteristics may be specified in the Purchase Order or the Engineering Drawing.
- 5.15 Nonconforming Material – Parts or materials that fail to meet the requirements of the Purchase Order, Engineering Drawing, or this document (TSS3-PI-SQAR-01). By this definition, material that is not identified or does not have the proper paperwork required by the Purchase Order is considered nonconforming.
- 5.16 Organization – MIQ and its various Business Units (see Buyer).
- 5.17 PPAP (Production Part Approval Process) – Manufactured part or assembly approval process, specified by the Quality Engineer as to the extent of documentation required. The requirements will be noted in the Purchase Order. See the Automotive Industry Action Group (AIAG, <http://www.aiag.org>) for required formats and details.
- 5.18 Procurement Documentation – The Purchase Order, Engineering Drawing, and TSS3-PI-SQAR-01.

Reviewed By:	Evan Nichols	Date:	12-14-18	Approved By:	Dan Powers	Date:	12-14-18
--------------	--------------	-------	----------	--------------	------------	-------	----------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

- 5.19 Purchasing Agent – The MIQ Commodity Manager responsible for the purchasing function and the primary contact with the Seller (supplier) of good or services.
- 5.20 Seller – The supplier providing the goods or services.
- 5.21 Supplemental Requirements – Additional requirements that can be added to the Purchase Order.
- 5.22 Supplier – See “Seller”.
- 5.23 Significant Processes – Processes that alter the base material such as heat treatments, coatings (plating, anodizing), EDM, ECM, plasma spray, etc.
- 5.24 Special Processes – Customer defined processes that are considered of such importance, product failure may occur without adequate controls in place to safeguard the process.
- 5.25 Warrant – Statement of part compliance provided by the seller.
- 5.26 Variable Data – The value range of the characteristic inspected. Variable data requires the use of gaging that provides measurable information (sizes, lengths, diameter, force, surface finish, torque, volts, amperes, etc.).

6.0 Supplier Approval

- 6.1 Supplier is required to implement and maintain a Quality management system .Acceptability will be determined by MIQ Quality department.
- 6.2 “Commercial” class parts require 100% compliance to the Purchase Order, Engineering Drawing, and this document.
- 6.3 “Manufactured” class parts have the same requirements as “Commercial” class with additional requirements as identified by supplemental Purchase Order remarks.
- 6.4 Part approval is based upon verification of part number identification, correct quantity, and review and approval of any specific requirements as noted in the Purchase Order. The release of products or services will be contingent on acceptance by MIQ Quality approval.

7.0 Product Identification

- 7.1 All products delivered to MIQ will be identified by the applicable part number and revision level.

8.0 Control of Nonconforming Material or Processes

- 8.1 Any requests to deviate from the P.O., Engineering Drawing and this specification, must be submitted to MIQ for approval by the use of the Engineering Evaluation Request form (TSS4-QA-EER-01) prior to production. Other notification documents must be approved by MIQ Quality prior to use.
- 8.2 As soon as a discrepancy is detected, an Engineering Evaluation Request form (TSS4-QA-EER-01) must be submitted to the appropriate MIQ Purchasing Agent for disposition. The earlier the nonconformance is detected, the more disposition options are available.
- 8.3 No nonconforming material is to be shipped to MIQ Partners without an approved copy of the Engineering Evaluation Request form on file. A copy of any nonconformance document must also accompany the delivered material.

9.0 Control of Records

- 9.1 Records generated by suppliers will be in accordance with the Purchase Order or this document. All records not previously mentioned, as required by this document, and generated by suppliers and/or their sub-tiers need to be retained on the suppliers or the sub-tier supplier’s premises. All retained documents need to be protected, readily available (within 24 hours after requested), and remain on file. All suppliers must notify MIQ prior to disposal of records related to MIQ product. In the event of the sale or closure of the supplier or sub-tier supplier of a special process, MIQ Partners must be notified in advance in order to arrange storage of the affected records.

10.0 Returns

- 10.1 The suppliers must respond to all Return Authorization Requests within 72 hours of the initial notification from MIQ.

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
<i>The personnel, noted above, have the responsibility for modifications to this document.</i>			

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

10.2 If MIQ is not notified with a specific decision or response with 72 hours, the supplier will be debited for the full value of the defective part(s) or service(s).

11.0 Corrective Actions

- 11.1 In the event that a Supplier Corrective Action Request is issued, an initial response (SCAR steps 1-3) is required within 72 hours from the date of issuance.
- 11.2 A final response to the SCAR is required within 14 calendar days from the date of issuance. The Supplier can request an extension from MIQ based upon the time required to implement systems or secure hardware/equipment used to implement the identified action(s). Acceptance of the extension request is at the sole discretion of Quality Management.
- 11.3 Timely responses to issued SCAR's are an integral part of the overall Supplier Rating.

12.0 Supplier Rating

- 12.1 Supplier's performance will be evaluated annually.
- 12.2 The rating will be comprised of (at a minimum) the following elements:
 - 12.2.1 Quality
 - 12.2.2 On Time Delivery
 - 12.2.3 Customer Satisfaction
- 12.3 The Quality rating is based upon the number of rejections versus the number of shipments made. A rejection is based upon non-compliance to the quality requirements specified in the Purchase Order, Engineering Drawing, or this document. A maximum of 100 points can be obtained in this rating area based upon the scale below.
- 12.4 The on Time Delivery rating is calculated based upon the receipt date versus the Purchase Order due date. It is imperative the Buyer and Seller agree upon the delivery date prior to order acknowledgement. Purchase Orders must be amended as necessary to reflect changes in due dates. A maximum of 100 points can be obtained in this rating area based upon the scale below.
- 12.5 The Customer Satisfaction rating is referenced by the Supplier's response time to SCAR's issued by MIQ (see Section 10.0, above). Conformance to SCAR response deadlines is considered when quality score is determined. A Supplier may be suspended from the Approved Supplier Listing based upon the Supplier Rating or additional information.
- 12.6 A supplier rating of 75% and above is desired. Any suppliers not meeting this expectation will be reviewed during the supplier review at MIQ to determine appropriate actions if necessary.

13.0 Supplier Evaluations

- 13.1 An onsite audit or supplier self evaluation may be required prior to issuance of the first PO using form TSS1-QA-SSA-01. The audit will be reviewed by a Quality representative. If issues are found, the audit will be reviewed by a cross functional team to determine if further actions are necessary.
- 13.2 As required by some customers, certain suppliers are directed sources (CDS) and replacement suppliers cannot be used. These suppliers operate under separate contracts with the customer regarding quality, delivery and scope requirements. These suppliers are identified on the approved supplier list and are managed primarily by the customer.

14.0 Counterfeit Parts

- 14.1 The supplier shall plan and implement a plan for the prevention and detection of counterfeit parts. Planning should include:
 - Training in the awareness and prevention of counterfeit parts
 - Parts obsolescence monitoring
 - Controls for acquiring externally provided product from authorized manufacturers, distributors or approved sources.
 - Traceability of product to their original authorized manufacturers
 - Verification and test methods for detection
 - Monitoring of counterfeit parts reporting from external sources

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
------------------------	----------------	----------------------	----------------

The personnel, noted above, have the responsibility for modifications to this document.

Print Date: 10/19/20 - 1:34 PM (This document is valid for 12 hours from print date.)

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

- Quarantine and reporting of suspect or detected counterfeit parts
- 14.2 As required by some customers, certain suppliers are directed sources (CDS) and replacement suppliers cannot be used. These suppliers operate under separate contracts with the customer regarding quality, delivery and scope requirements. These suppliers are identified on the approved supplier list and are managed primarily by the customer.

APPENDIX A – Supplemental Purchase Order Requirements

QUALITY REQUIREMENTS

001 – Supplier Quality Assurance Requirement TSS3-PI-SQAR-01 applies to this order.

002 – Unless otherwise specified, all specifications referenced in the procurement documentation are to be of the latest revision applicable during the processing of this order. This revision level shall be documented on all required certifications. On significant operations, no changes shall be made without prior approval by the Buyer. Quality system must conform to GE Specification S-1000. GE is the end user.

003 – Special/significant process(es). Supplier must be currently approved by GEAE (Yellow Pages) during the processing of this order.

004 – Unless otherwise specified, all specifications referenced in the procurement documentation are to be of the latest revision applicable during the processing of this order. This revision level shall be documented on all required certifications. On significant operations, no changes shall be made without prior approval by the Buyer. Quality System must conform to RR9000: SABRe. Rolls-Royce Corporation is the end user.

005 – Special/significant process(es). Supplier must be currently approved by Rolls-Royce during the processing of this order.

006 – Unless otherwise specified, all specifications referenced in the procurement documentation are to be of the latest revision applicable during the processing of this order. This revision level shall be documented on all required certifications.

007 – Special/significant process(es). Supplier and technician must be currently approved by FMC Technologies during the processing of this order.

008 – FAIR required. Must be submitted on SAE AS-9102 forms and include ballooned drawing. No other document will be accepted.

009 – EDM and Laser cutting must have MIQ Quality approval prior to manufacture

010 – Source inspection required. Part acceptance will be conducted at the Supplier’s facility. Contact the Purchasing Agent to schedule a source inspection at least 72 hours prior to the Purchase Order delivery date.

011 – Supplier to provide test specimens for inspection and approval

012 – Quality System approval required prior to Supplier acceptance of this order. Contact the Purchasing Agent to schedule a Quality System audit.

013 – Certificate of Conformance required with shipment.

014 – Material certification(s) required with shipment. Certification must be performed by an S-400 approved laboratory.

015 – Material certification(s) required with shipment.

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
<i>The personnel, noted above, have the responsibility for modifications to this document.</i>			

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

016 – Certification of the process performed is required. Certification must reference appropriate specification and revision level.

017 – Part serialization required. Contact MIQ Quality Assurance for serial numbers.

018 – Part serialization required. Supplier to serialize hardware using their existing configuration management system.

019 – Gage R&R study required. Study must be conducted on gages used to evaluate all CTQ's, KCC's, Major, and Critical Characteristics.

020 – (deleted)

- 021 – Government funded property applies to this order.
- A. All Government funded property or tooling is restricted to use on the applicable government contract only
 - B. All Government funded property or tooling is property of US government and may not be altered or modified
 - C. Supplier must report and damage or loss immediately to MIQ Partners
 - D. Supplier must report any maintenance requirements for Government funded property or tooling
 - E. Supplier is liable for any loss of Government funded property or tooling
 - F. Any excess tooling or material must be returned to MIQ at completion of contract
 - G. Supplier grants Government access to its facilities for the purposes of reviewing, inspecting and evaluating the subcontractor's property management plan, systems, procedures, records, and supporting documentation that pertains to Government property.

- 022 – ensuring that employees are aware of:
- their contribution to product or service conformity;
 - their contribution to product safety;
 - the importance of ethical behavior.

023 – (deleted)

024 – (deleted)

025 – (deleted)

026 – Provide 100% inspection data on KPC's, CTQ's, Major and Critical characteristics for five shipments.

027 – Provide 100% inspection data on KPC's, CTQ's, Major and Critical characteristics indefinitely.

028 – Provide Certificate of Conformance with the first shipment.

029 – Provide Certificate of Conformance indefinitely.

030 – Shipping container must be labeled with the following: "Inspected 100% for specific feature".

031 – Shipping container must be labeled with the following: "First Production Shipment".

032 – Shipping container must be labeled with the following: "Re-inspected / Reworked Parts".

033 – Provide 100% inspection data on all blueprint and specification characteristics.

034- All specialty metals used in this product must be melted in the United States or a qualifying country or must be assembled or manufactured in a qualifying country.

035- This has been identified as a "Critical Application Item" by the DoD. The Department of Defense is the end user.

036- This has been identified as a "Critical Safety Item" by the DoD. The Department of Defense is the end user.

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
-------------------------------	----------------	-----------------------------	----------------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

- 037- The Department of Defense has designated this order as a DO priority rating.
- 038- The Department of Defense has designated this order as a DX priority rating.
- 039- Technical Plan to be submitted and approved by buyer prior to processing of material.
- 040- Documentation of the NDT inspector's licensure must be provided with results of test.
- 041- The use of statistical techniques for product acceptance is allowed providing evidence of CPK 1.33 or better.

PURCHASING REQUIREMENTS

100 – Seller shall not make material commitments or production arrangements in excess of the amount or in advance of the time necessary to meet forecast and communicated release signals. Buyer requests that Seller hold one release of finished product and one in process for readily available shipments to be released on Kanban basis. Buyer will not be responsible for termination and/or cancellations of items produced ahead of normal running production lead times unless prior written authorization is approved by Buyer. This includes any cost liability or expenses relating to raw materials, WIP, and finished goods.

- 101 – Order acknowledgement via e-mail/fax required.
- 102 – Early shipment acceptable.
- 103 – Shipments will not be accepted more than five (5) working days early.

SHIPPING REQUIREMENTS

- 300 – MIQ to approve shipping method prior to delivery.
- 301 – Packing Slip must include a unique Packing Slip number, Purchase Order number, MIQ part number and include the line and release number shipped against.
- 302 – Supplier must ship collect via Carrier specified on Purchase Order.

MISCELLANEOUS REQUIREMENTS

- 400 – Buyer reserves the right to terminate the Purchase Order or any portion thereof if delivery is not made when and as specified in such Purchase Order or if Supplier fails to deliver articles, machines, products, components, materials and/or services which conform in all respects to Buyer's specifications or otherwise fails in the due performance of each and all of the within Terms and Conditions of any Purchase Order.
- 401 – Contact MIQ Purchasing Agent prior to shipment.

APPENDIX B- Drawing Interpretation/Workmanship Requirements

1.0 General Requirements

- 1.1 All drawing interpretations are governed by ASME Y14.5
- 1.2 All dimensions apply in a free state.

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
<i>The personnel, noted above, have the responsibility for modifications to this document.</i>			

MIQ	Supplier Quality Assurance Requirements	Control Number:	
		TSS3-PI-SQAR-01	
		Revision Date:	Revision Level:
		10/13/20	15

- 1.3 Parts are to be clean, burr free, and have all sharp edges broken. The edge break is to be between .005 and .015 inches. A true radius is not required.
- 1.4 Parts are to be protected during all phases of manufacturing and shipping to eliminate nicks, gouges, etc. Metal-to-metal contacted must be avoided and is grounds for rejection of material at Receiving and/or Inspection. Surfaces are to be protected against corrosion and contamination.
 - 1.4.1 Requirement 1.4 does not apply to suppliers of raw material (castings, forgings, bar/plate/round stock, non-machined weldments) where subsequent machining operations will remove material from the affected surfaces unless mandated by supplemental Purchase Order requirements.
- 1.5 Parts are to be free from foreign objects. Internal passages, where foreign objects can become entrapped, must be inspected and any detected foreign objects must be removed prior to shipment to MIQ.

2.0 Diameters

- 2.1 Diameters that share a common axis, surfaces drawn at right angles, and surfaces drawn as parallel lines are assumed to be concentric, perpendicular, and parallel, respectively.
- 2.2 Runout: The circular runout of any diameter shown concentric about an axis shall not exceed .005 TIR with respect to any other diameter shown concentric to that same axis. If a datum is established by the drawing, the runout shall be in relation to that datum axis.

3.0 Parallelism & Perpendicularity

- 3.1 The elements of flat, machined surfaces shown parallel or perpendicular and dimensioned from a common datum shall be parallel or perpendicular to each other within a total tolerance equal to .002 times the length with a maximum of .015 total for elements 20 inches and less and .030 total for longer lengths.
 - 3.1.1 Example 1: A part has 2 surfaces drawn parallel to each other. The part is 6.75 in length. By the rule above, the surfaces must be parallel within .0135 (6.75 x .002 = .0135).
 - 3.1.2 Example 2: The above part is 12.5 inches long. By the rule above, the surfaces must be parallel within .015 (a maximum of .015 for elements 20 inches and less).
- 3.2 The axis of both internal and external threaded features (as determined by the pitch diameter), shall be perpendicular to the face or shoulder within 30 minutes in any direction.
- 3.3 When a hole is dimensioned by other than the true position tolerance method, the hole centerline shall be perpendicular to the face or shoulder within 1 degree in any direction.

4.0 Perpendicularity of Faces and Shoulders

- 4.1 Circular Runout (face runout): The maximum circular runout of any circular element at right angles to its axis shall not exceed the values shown in Table 1.

5.0 Flatness and Straightness

- 5.1 Variation from flatness and straightness shall not exceed the values shown in Table 2.

6.0 Surface Texture

- 6.1 When the drawing does not specify a roughness height rating for a specific surface, the values listed in Table 3 apply.

7.0 Spotfaces

- 7.1 The maximum depth of a spot face shall not violate the minimum part thickness nor shall it be more than .020 deeper than the depth required for 100% cleanup.

8.0 Welding Requirements

- 8.1 All welds are to be continuous. Short welds and intermittent welds are to be used only where specified. Short welds and intermittent welds may be used for fit-up and assembly purposes.
- 8.2 Actual joint design, method of fit, type of welding, welding sequence, filler material, etc., is the responsibility of the individual welder.
- 8.3 Flame cut edges must be cleaned of slag prior to welding.
- 8.4 Exposed edges of end plates, gussets, etc., that are not subject to additional machining must be smooth and free of obvious surface irregularities.
- 8.5 All sharp edges must be broken, and burrs removed (see 1.3 above).

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
-------------------------------	----------------	-----------------------------	----------------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

- 8.6 The deposited metal must have properties equal to or better than the base material.
- 8.7 Where full penetration double-welded butt joints are specified, back chipping or gouging must be employed unless the welding process used is such that full penetration is obtained.
- 8.8 Fillet welds must be made with equal legs and full penetration to the root. The throat of a fillet weld must be equal to or greater than the thickness of the thinnest member being joined.
- 8.9 Inspection
 - 8.9.1 Welds must be visually inspected for the following conditions:
 - 8.9.1.1 Appearance
 - 8.9.1.2 Cold lapping
 - 8.9.1.3 Excessive penetration
 - 8.9.1.4 Burn through
 - 8.9.1.5 Surface porosity
 - 8.9.1.6 Spatter
 - 8.9.1.7 Bad tie-in
 - 8.9.2 Any welds that do not pass the visual weld inspection are subject to rejection and return to the supplier for rework/replacement.

Table 1	
Circular Runout	
Diameter	Runout (TIR)
0 to 1	.001
> 1 to 2	.002
>2 to 3	.003
> 3 to 4	.004
> 4 to 5	.005
> 5 to 12	.007
>12 to 20	.010
> 20	.020

Table 2		
Variation from Flatness & Straightness		
Surface Finish Requirement	Unit Variation in any Direction	Total Variation
63 and smoother	.002/inch	.030
> 63	.004/inch	.060

Table 3	
Surface Roughness Values (Ra)	
Surface or Feature	Roughness Height Rating
Holes with a tolerance equal to or less than .003	63 (max)
Threaded surfaces	63 (max)
Flat surfaces, Spotfaces, or Counterbores	125 (max)
Chamfers and Radii	125 (max)
Holes with a tolerance greater than .003	125 (max)

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
-------------------------------	----------------	-----------------------------	----------------

The personnel, noted above, have the responsibility for modifications to this document.

MIQ	Supplier Quality Assurance Requirements	Control Number: TSS3-PI-SQAR-01	
		Revision Date: 10/13/20	Revision Level: 15

Change History

Rev. #	Description of Change
0	Initial release- Changed from QA-038 to reflect new labeling system. Added Control of Records and Returns sections to the document.
1	Added Section 6, Raw Material Suppliers. Changed inspection report references to "TSS4-AS-9102-01".
2	Major changes to the entire document.
3	Changes to section 3.5, 3.6, 3.14, 4.2, and 7.1.
4	Added Purchasing "Standard Terms and Conditions". Added Quality clarification of documentation for upper level assemblies (021, 022).
5	Removed all suppliers will be approved on a part number basis from section 6.0 and changed section 11.0 to supplying supplier scorecards to top 5 suppliers monthly instead of all suppliers twice annually.
6	Revised section 11.0 "Supplier Rating" to change supplier rating formulas and add section 12.0 "Supplier Evaluations"
7	Revised appendix A, para. 21 to state that the five pc. sample size may be modified by customer requirements.
8	Updated sections 11.0, 12.0 & Appendix A to more accurately reflect current practice
9	Removed product identification requirements, medical industry quality requirements, added quality requirements, misc. changes as underlined. Changed section 9.0
10	Removed obsolete codes
11	removed obsolete codes
12	Added code 009 to require TSS approval to EDM
13	added code 21
14	Updates for AS9100
15	Updates for MIQ partners verbiage and req 22

Reviewed By: G Cuadill	Date: 10-13-20	Approved By: GDemary	Date: 10-13-20
------------------------	----------------	----------------------	----------------

The personnel, noted above, have the responsibility for modifications to this document.

Print Date: 10/19/20 - 1:34 PM (This document is valid for 12 hours from print date.)