North America Supplier Quality Manual



Isuzu Motors North America Corporation



Version 1.0 September 12, 2022





This Isuzu Motors North America (INAC) Supplier Quality Manual has been reviewed, approved and signed by the Purchasing and Manufacturing leadership.

Chris Rase

Vice President, Purchasing Isuzu Motors North America

Thomas Meisel

Director, Manufacturing (CVP) Isuzu Motors North America

Greg Farrelly

Executive Manager, Supplier Quality, Purchasing Isuzu Motors North America

ISUZU MANUFACTURING PLANT INFORMATION

Receiving docks open from 6:00AM-2:00PM EST Monday thru Friday Plants are contract manufacturing by Builtmore (Shyft group)

NGAS PLANT #5

1055 Mikesell St. Charlotte, MI 48813 - Class 3-5 Trucks - Gas Engine

FTR Plant #12

1023 Reynolds Rd.Charlotte, MI 48813Class 6-7 TrucksDiesel Engine

INACManual001 Revision: 09/12/2022 Supplier Quality Manual 2





Isuzu Motors North America Supplier Quality Manual

Table of Contents

1.	Introduction	4
2.	Purpose	4
3.	North America Procurement and Supply Chain (INAC-P) Vision	4
4.	North America Procurement and Supply Chain (INAC-P) Responsibilities	5
	Quality Management System	
6.	Supplier On-Boarding Process (New Supplier/Program Process)	5
7.	North America Supplier Quality Audits (A/B Audits)	5
8.	Advanced Product Quality Planning	6
9.	Production Part Approval Process – PPAP	6
10.	. Supplier Change Requests	7
11.	. Nonconforming Material	8
12.	. Corrective Action Requirements for Suppliers	8
13.	Containment Level 1	9
14.	. Containment Level 2	9
15.	. Supplier Cost Recovery (Quality & Delivery Concerns)	10
16.	. Supplier Performance Monitoring/Scorecard	10
17.	. Quality Parts Per Million – (PPM)	11
18.	Delivery Requirements	11
19.	. Warranty and Cost Recovery	11
20.	Product Traceability	11
21.	Distributor Requirements	11
22.	. Control of Customer – Supplied Product	12
23.	. Sub-Tier Supplier Quality Assurance	12
24.	. Fastener Quality Requirements	12
25.	. Record Retention	12
26.	Shelf Life	13
27.	. Welding Requirements	13
28.	. Hydraulic and Pneumatic Component / System Cleanliness	13
29.	. INAC Purchasing Manual	13
30.	. INAC Materials Management and Delivery Manual	14
31.	. AIAG/ISO/VDA Documents for Usage in Quality Management Systems	14

Revision: 09/12/2022





1. Introduction

The Isuzu Motors North America Corporation (INAC) Supplier Quality Manual (SQM) serves as a guide for aiding Suppliers in understanding the key elements of INAC Quality requirements and expectations. The SQM sections are the minimum practices that Supplier facilities are required to effectively implement.

These requirements apply to ALL SUPPLIERS of: Production Materials
Production or Service Parts Distribution Centers
Port Installed Options (PIO) post assembly plant part installation

All INAC Suppliers are required to meet all INAC Quality requirements identified in this document. Use of the words "shall" and "must" indicate that the statement is a requirement.

In addition, all INAC Suppliers are expected to meet INAC Quality expectations identified in this document. Failure to do so is likely to have an impact on future business. Use of the word "should" indicates that the statement is an expectation.

It is INAC's mission to provide our Customers with defect-free products and services and to supply them at the lowest total cost and delivery timing. This goal can only be achieved with the support and commitment between you, our Supplier and us. Clear, concise expectations and requirements will make the Supplier-Customer relationship more rewarding and effective for all.

When referenced, INAC includes, but is not limited to, the products assembled by Builtmore (contract manufacturer) and at Ports were PIO parts are received and installed.

All INAC Suppliers are required to support the INAC identified priorities.

Quality Policy

Isuzu Motors North America Corporation (INAC) is devoted to the building of innovatively designed, durable and high quality trucks. INAC is committed to the achievement of zero-defect production with continuous improvement and customer focus.

AIAG Documents

All AIAG specific documents referenced can be obtained by contacting AIAG at their latest phone number. Documents can also be ordered by accessing AIAG on site the web at www.AIAG.org.

Note to Suppliers:

This manual is not intended to be comprehensive and "all-encompassing"; however, certain circumstances will prompt questions. If you have any questions regarding any part of this manual, you are encouraged to contact your respective INAC Supplier Quality Engineer and/or INAC Purchasing personnel.

2. Purpose

The purpose of this SQM is to provide a uniform method to communicate general requirements, expectations, Customer specific requirements and guidelines to the Supply Chain.

3. North America Procurement and Supply Chain (INAC-P) Vision

The INAC-P Vision is to develop world-class procurement and supply chain team members providing the best in logistics, quality, new product development and competitiveness to the INAC facilities.





4. North America Procurement and Supply Chain (INAC-P) Responsibilities

All raw material and components are obtained through the corporate purchasing process. All raw materials and component parts will be classified by product type to develop consistency across all Suppliers within that product line and INAC facilities.

5. Quality Management System

All Suppliers to INAC are expected to be certified to the latest version of ISO9001, IATF16949 and/or VDA 6 standards by an accredited third party registrar. Non-compliance to this expectation may have an impact on future business.

For Materials Management/Delivery, compliance to the AIAG Materials Management Operations Guidelines Logistical Evaluation (MMOG/LE) assessment is preferred to support an effective materials management and delivery system is in-place at the Supplier manufacturing location through completion of the MMOG/LE assessment questions. This document can be found on the AIAG website www.AIAG.org.

6. Supplier On-Boarding Process (New Supplier/Program Process)

A new Supplier is defined as a Supplier and/or Supplier location who has never done business with INAC or is a past Supplier who has not supplied product to INAC within' the last five years. Suppliers are required to register their business as a potential Supplier by visiting the following site (http://www.iszapurchasing.com) and completing the Supplier Profile (INACForm033) and questionnaire (INACForm032). It is the Supplier's responsibility to keep this information updated and current. INAC must have a signed Non-Disclosure Agreement in place with a Supplier prior to any intellectual information exchange. Suppliers shall also acknowledge that international-related technical information provided by INAC is subject to export control laws and regulations of the US.

Please reference the INAC Purchasing Manual (INACManual003) for additional details of this process on the ISUZU website (http://www.iszapurchasing.com).

7. North America Supplier Quality Audits (A/B-Audit)

The INAC-Purchasing A/B-Audits are used to assess the Supplier's capability and process in accordance with their Quality Management System. If a Supplier is ISO 9001, IATF16949 and/or VDA 6 registered to the latest standard, and in good standing, INAC personnel may choose not to perform an on-site audit. Reference either on-site New Supplier A-Audit form (INACForm017) or the remotely completed by Supplier A-Audit form (INACForm029) and Production Readiness timing (run@rate)/prior to PPAP submission utilizing the B-Audit form (INACForm022).

Additionally, a materials management and delivery system audit may be required if Supplier does not comply with the latest version of the AIAG MMOG/LE assessment results. Upon request, MMOG/LE audit results to be made available to INAC personnel.

7.1 North American Supplier Audit Overview

The audit process is used to determine how well a Supplier's Quality Management System performs. The audit process contains Standard Process Elements and Special Process Elements (as required) which are scored. An audit will be required for all new Suppliers (A-Audit) and an audit may be scheduled for any Suppliers as part of PPAP readiness and with repetitive quality or delivery issues on-going during production (B-Audit and Run@Rate).





North American Supplier Audit Overview (continued)

In addition, audits may consist of assessing new Supplier capabilities as well as capacity and readiness for new product launches.

INAC reserves the right to visit and/or audit all production facilities (including second tier Suppliers) who supply product and or services.

8. Advanced Product Quality Planning

The information provided within' all the Advanced Product Quality Planning sections outlines the specific INAC requirements for new product implementation which should be a sub-set of the Supplier's APQP/Gate process.

8.1 Advanced Product Quality Planning Overview

Advanced Product Quality Planning (APQP) is a structured approach for defining, establishing and specifying goals for product quality. Quality planning focuses on developing process controls that, when properly managed, ensure a high degree of quality within' the manufacturing and assembly system (may also be referred to as ISUZU Product Development Team meetings).

Quality planning begins with a company's management commitment to defect prevention and continual improvement, as opposed to defect detection.

The five common phases of the Advanced Product Quality Planning Process are:

- 1) Plan and Define Program
- 2) Product Design and Development
- 3) Process Design and Development
- 4) Product and Process Validation
- 5) Feedback Assessment and Corrective Action

The Supplier shall establish a structured approach to implement new processes. It is recommended that the Supplier utilize the AIAG Advanced Product Quality Planning and Control Plan manual approach. This structured approach to new product planning will enable the Supplier to effectively launch new products and ensure controls are established to achieve the highest levels of Quality and Delivery.

This planning will enable the Supplier to provide the required Production Part Approval Process (PPAP) documentation.

9. Production Part Approval Process - PPAP

The INAC Production Part Approval Process (PPAP) defines requirements for production part approval. The purpose of PPAP is to determine if all ISUZU engineering design record and specification requirements are properly understood by the Suppliers and that the Supplier's manufacturing process has the capability to produce product consistently to meet these requirements during an actual production run, at the quoted production rate. ISUZU PPAP forms can be found on the ISUZU website at (http://www.iszapurchasing.com).





9.1 PPAP Requirements

The Supplier shall meet all specified PPAP requirements based on the AIAG Production Part Approval Process - PPAP manual, the outlined section in this Supplier Quality Manual as well as the INAC PPAP Submission Checklist (INACForm008) and supporting PSW Warrant of Material for Production Approval form (INACForm007) is used for the part submission package. The default level for PPAP submission is "Level 3", unless otherwise approved by the INAC SQE.

If any part specifications cannot be met, the Supplier shall document its problem-solving efforts and contact the appropriate INAC personnel to engage Quality and Engineering for concurrence in determination of appropriate corrective action.

10. Supplier Change Requests

Suppliers (Tier 1 and Tier 2) may propose design changes or process modifications to help reduce cost, improve quality, and increase reliability and process capability of the product. ALL proposed changes or modifications defined below, whether permanent or temporary and including proprietary designs, MUST be approved in writing by INAC personnel before the change is implemented and may require a revised PPAP submission. The detailed INAC Supplier change request forms below can be found on the ISUZU website (http://www.iszapurchasing.com).

If a Tier 1 Supplier wishes to change manufacturing locations, the Supplier must notify INAC personnel and the new manufacturing location shall be qualified by an audit, material/parts validated, and a PPAP will be required. A PPAP submission may be required, even if the change is at the Supplier's Tier 2 level, per discussions with INAC Supplier Quality.

The applicable completed Supplier change form shall be sent to INAC Quality and Purchasing personnel to begin the INAC review process for approvals required. Please allow for 12 weeks minimum timing for implementation.

There are generally three types of Supplier Change Requests:

10.1 Supplier Engineering Change Request (ECR) form (INACForm004)

An Engineering Change Request (ECR) form must be submitted to INAC
 Purchasing and/or Supplier Quality personnel for Supplier requested changes to
 parts which requires a part drawing change.

10.2 Supplier Request Sheet (SRS) / Deviation form (INACForm005)

- A Supplier Request Sheet (SRS) form must be submitted to INAC Purchasing and/or Supplier Quality personnel for temporary Deviations of a part from its drawing OR to act as a Deviation until an ECR can be processed and approved (urgent request).
- Supplier Cost Reduction ideas can also utilize this form to change the product, process or design, generated and proposed by the Supplier, to reduce product cost.

10.3 Supplier Process Change Request (PCR) form (INACForm006)

 A Process Change Request (PCR) form must be submitted to INAC Purchasing and/or Supplier Quality for changes to the Supplier's production process but will not affect the fit/function of the product.





11. Nonconforming Material

The Supplier shall establish and maintain documented procedures to ensure that proven or suspected nonconforming products are prevented from unintended use or installation. The control procedures and activities must provide for identification, documentation, evaluation, segregation, and disposition.

In the event that nonconforming material is present on finished product in the field, PIO, on sales lots, or becomes a warranty claim, the Supplier is responsible to aid INAC personnel in evaluating and correcting the issue. INAC is entitled to recover from the Supplier all costs reasonably incurred in taking corrective action per the terms and conditions.

In the event that nonconforming product is reworked, the Supplier shall verify that the reworked product meets the design requirements.

12. Corrective Action Requirements for Suppliers

INAC personnel will notify Suppliers of problems regarding quality, delivery, packaging and services in writing. Initial response and containment is expected within 24 hours. This initial response includes, at a minimum:

- Utilization of a documented corrective action format (CAR/DCAR) or similar Supplier document to address and document quality or delivery concerns
- The problem description
- All personnel assigned to resolve the concerns
- Containment actions taken or in-process (Sorting on-site at INAC facility by the Supplier or a third party company and/or replace with properly identified certified material to meet production needs)
- Containment of all in transit material

The completion of the final corrective action report should be furnished to INAC no later than 45 days after the initial request. The final corrective action report should include all documentation of problem solving tools used such as, pareto analysis, 5 Whys, fishbone diagram, DOE and include the updated PFMEA's and Control Plans. Corrective actions should focus on addressing root causes by making improvements to the manufacturing process and Supplier's system. Root causes focused on inspection failures, operator error, or other types of blame are unacceptable and should be avoided. A flat \$100 fee can be applied to each CAR/DCAR issued to a Supplier.

Corrective Actions may be issued for reasons including, but not limited to:

- Delivery
- Packaging
- Nonconforming material
- Slow or no responsiveness to inquires
- Non-compliance to latest versions of ISO9001, IATF16949 and/or VDA 6 certification or this Supplier Quality Manual

The INAC Corrective Action procedure (INACProc001), the quality Corrective Action (CAR) form (INACForm001) and the Delivery Corrective Action (DCAR) form (INACForm002) can be found on the ISUZU website (http://www.iszapurchasing.com).

The Supplier is expected to address rejects and failures regardless of whether INAC requires submission of a corrective action, in order to prevent recurrence of the problems.





Corrective Action Requirements for Suppliers (continued)

12.1 Containment and Short Term Corrective Actions

An initial response concerning Containment Measures is expected within 24 hours after nonconformance discovery by INAC or the Supplier. The Supplier must contain all materials at INAC's facilities, off-site warehouses, and any material in transit. The Supplier must also put Short Term Corrective Actions in-place. Upon request, the Supplier shall provide immediate containment at the INAC facilities to ensure no stoppage of production. The Supplier is responsible to provide a detailed report of containment, short term corrective action(s) and disposition activity upon request. The Supplier must provide Returned Material Goods Authorization (RMA) at that time, if parts are to be returned for Supplier teardown, analysis and feedback.

The INAC Corrective Action initiator may require the Supplier to implement Containment Level 1 or 2 if the nature of the Quality incident is of the following categories:

- Repeat Non-conformances
- Major Disruptions
- Field Campaign
- Production Downtime
- Production Shortage
- 13. Containment Level 1 (CL1): Is an INAC requirement that a Supplier put in-place a redundant inspection process at the supplying location. To inspect and sort for a specific and specified nonconformance using defined inspection instructions and data collection sheets for results tracking, execute the selected corrective action methodology, and insulate INAC from the receipt of nonconforming parts/material. The redundant inspection is in addition to normal controls, is executed by the Supplier's employees, and must be in addition to the normal production process controls. The Supplier shall follow the process defined in the INAC Containment Level 1 and 2 procedure (INACProc002) and utilizing the Containment Level 1 and 2 Tracking form (INACForm003) which can be found on the ISUZU website (http://www.iszapurchasing.com).

If the Containment Level 1 criteria is not executed properly and the INAC facility continues to receive nonconforming material, the Supplier can be placed on Containment Level 2.

14. Containment Level 2 (CL2): An INAC requirement that includes the same processes as Containment Level 1, with an added inspection process by a third party representing INAC's interests specific to the containment activity. Includes inspections and sorting for a specific and specified nonconformance using defined inspection instructions and data collection sheets for results tracking, execute the selected corrective action methodology, and insulate INAC from the receipt of nonconforming parts/material. The third party is selected by the Supplier, concurred by INAC, and paid for by the Supplier. The Supplier shall follow the process defined in the INAC Containment Level 1 and 2 procedure (INACProc002) and Containment Level 1 and 2 Tracking form (INACForm003) which can be found on the ISUZU website (http://www.iszapurchasing.com).

14.1 Sorting and Rework

When the Supplier's parts do not meet specifications and the INAC production schedule is at risk, the Supplier shall assume responsibility of sorting and rework activity. The Supplier shall provide detailed Standardized Work Instruction's including re-inspection requirements for rework activities that are approved by the INAC Quality Representative. The Supplier must





Sorting and Rework (continued)

also provide detailed Standardized Work Instruction's for sorting activities including both variable and attribute acceptance criteria, as applicable.

- Cost Recovery: Is for sorting and rework done by INAC that will be debited against the Supplier for all expenses related to the activity.
- Supplier of Third Party Activity: Are for additional temporary manpower needed by INAC's temporary agency, the Supplier will be billed directly by the agency.
- Supplier Support: Is the presence of a required Supplier representative on-site while sorting and rework operations are conducted. If the Supplier provides their own manpower to sorting and/or rework material, they will be allowed to sort and/or rework material on INAC properties, space permitting.

15. Supplier Cost Recovery (Quality & Delivery Concerns)

For any nonconformance related to Supplier fault, there may be a Cost Recovery requested to the applicable Supplier related to costs associated with the nonconformance to recoup ISUZU related costs which may include:

- · Sorting/Inspections required
- Part transportation for sorting/inspections/staging
- Additional labor required for affected parts (rework, repair, etc.)
- Delivery related expedites/urgent processing

A flat \$100 administration fee can be applied to process each CAR/DCAR or Cost Recovery.

Repeat Quality/Delivery Concerns

For those non-conformance delivery and quality issues that reoccur after the first DCAR/CAR has been resolved and closed, there may be an additional fee assessed. Supplier shall be notified of the additional fee via the Supplier Cost Recovery form (INACForm040) that will be submitted along with the Claim Package. In addition to the potential items for Cost Recovery listed above, the Supplier can be assessed an INAC additional administration fee of:

- 1. First repeat occurrence after the initial DCAR/CAR is closed:
 - Up to Two times the administration fee of \$100.00
- 2. Second repeat occurrence after the initial DCAR/CAR is closed:
 - Up to Four times the administration fee of \$100.00
- 3. Third repeat occurrence after the initial DCAR/CAR is closed:
 - Up to Ten times the administration fee of \$100.00

In addition, INAC personnel may require an on-site corrective action review at Supplier's manufacturing site where the issue(s) occurred and how the Supplier intends to correct the parts/delivery concern and verify the actions implemented are effective. The Supplier can also be put on Containment Level 1 or 2 as described above in previous sections of the SQM manual.

16. Supplier Performance Monitoring/Scorecard

The purpose of Supplier Performance monitoring is to identify the Supplier's conformance to INAC standards. Parts and services furnished to INAC are expected to meet and maintain zero defects and 100% on-time delivery. The Supplier Performance to the INAC defined priorities is monitored. This data will be used for sourcing decisions by the INAC Purchasing Department. If the Supplier's performance does not meet the expectations of INAC, the Supplier could be placed on New Business Hold (INACProc003) or removed from the supply base. The Supplier can review their Supplier Scorecard containing Quality, Delivery and Customer Service performance by contacting INAC Quality or Purchasing personnel. Supplier Scorecards are sent out via e-mail at the end of each quarter to the Supplier representative identified for further dissemination within' the Suppliers





Supplier Performance Monitoring/Scorecard (continued) company.

NOTE: The Supplier Scorecard, which is emailed to Suppliers, is not available on the ISUZU website at this time. Scorecards are typically emailed the month after the Quarter ends.

17. Quality Parts Per Million – (PPM) Measurement

Parts Per Million (PPM) is a method of stating the performance of a process in terms of actual nonconforming material. PPM data is used by INAC Quality personnel and Purchasing to assess the performance of the Supply Chain relevant to Quality. INAC requires its Suppliers to participate in and provide necessary improvements to reduce PPM levels in alignment with any communicated INAC PPM Goals (12 month rolling average).

NGAS PPM Goal: 250FTR PPM Goal: 500

PPM is calculated using the following formula:

PPM = (Total Nonconforming Quantity/Total Receipt Quantity)*1,000,000

18. Delivery Requirements

The Supplier is required to meet 100% on-time delivery, including quantity and timing requirements by the INAC facility. Failure to meet these requirements will result in the Supplier being responsible for any premium freight as well as downtime incurred at INAC.

Reference the separate INAC Delivery Manual (INACManual002) on the ISUZU website (http://www.iszapurchasing.com).

19. Warranty and Cost Recovery

The Supplier shall review all warranty claims on their parts when requested by INAC personnel. Failure to review warranty returns does not relieve Supplier responsibility to assure ISUZU satisfaction. When a part in a product fails during the warranty period, there is a cost associated with repairing the product. If the part that fails is purchased, INAC may look to the Supplier for reimbursement. INAC's expectation will be for the Supplier to collaborate with INAC to determine the root cause(s) of the failure, as well provide reimbursement for the repair expenses if defect is proven to be Supplier caused. See INAC Terms and Conditions for further defined requirements on the ISUZU website (http://www.iszapurchasing.com).

20. Product Traceability

The Supplier shall adhere to the ISO9001, IATF 16949 and/or VDS 6 specifications for Product Identification and Traceability and always identify its products from applicable drawings, specifications, or other documents, during all stages of production, delivery, storage and installation, where appropriate.

If traceability is a specified requirement, the Supplier shall use unique identification for product (serial number, batch number, etc.). This information must be documented and retained appropriately. This traceability requirement also applies to the Supplier's sub-tier suppliers.

21. Distributor Requirements

Distributors shall have in-place a system to understand all parts origin, traceability to manufacturing location, and required specifications. The distributor shall be responsible for proper

INACManual001 Revision: 09/12/2022 Supplier Quality Manual 11





Distributor Requirements (continued)

handling and storage to prevent damage and product deterioration. Stock control shall be implemented, as appropriate, for shelf life items and the removal of obsolete/unacceptable product. Packaging shall provide adequate protection to ensure safe delivery. The distributer is responsible for corrective actions in regards to nonconforming product supplied to INAC. All requirements within this manual apply to the Distributor.

22. Control of Customer – Supplied Product

If ISUZU provides product for incorporation into the Supplier's product or related activities, the Supplier shall establish and maintain documented procedures for the control, verification, storage and maintenance of ISUZU product. Any such product that is lost, damaged, or is otherwise unsuitable for use shall be recorded and reported to INAC Purchasing.

INAC owned returnable packaging is included in this specific requirement. An affixed tag specifically containing the part number and/or ISUZU name to identify ownership is the preferred approach. However, this requirement may be met by using a Supplier designated number cross-referenced with clear traceability back to ISUZU.

23. Sub-Tier Supplier Quality Assurance

The Supplier is responsible for all communication of all purchase order requirements to include those specified within this SQM. The Supplier shall provide requirements and guidance to their Supply Chain consistent with the requirements of INAC.

The Supplier shall have a process in-place to ensure that all sub-tier suppliers, have and maintain, a system to provide conforming product and services in accordance with INAC requirements.

24. Fastener Quality Requirements

The Supplier must develop a program to assure fasteners conform to the specifications to which they are represented to be manufactured, to provide for accreditation of laboratories engaged in fastener testing, to require inspection, testing and certification in accordance with standardized methods of fasteners.

All externally threaded fasteners must have available chemical and physical certifications, from a certified laboratory. Certifications must include lot traceability back through the manufacturing system to the heat lot of raw material used. It is not necessary for shipments to include certification documents; however, the Supplier must be able to provide these certifications to INAC within 24 hours of request. Cartons must be marked with a unique lot number, which allows the Supplier to trace material back to the manufacturer. In addition, it is strongly recommended these requirements are communicated by the Supplier to their Tier 2 Suppliers.

25. Record Retention

Records/documents providing objective evidence of conformance to drawings, standards, and other applicable specifications considered essential to the effective operation of the program shall be maintained. They shall be legible, dated, clean, and readily identifiable and maintained in an orderly manner. They shall provide traceability to specific products and use actual data, as required by applicable specifications, to indicate acceptability of the product.

Records/documents may be either hard copy or computer media. See the Purchasing Manual (INACManual003) for retention periods for these related documents on the ISUZU website (http://www.iszapurchasing.com).





26. Shelf Life

The Supplier shall mark the parts and exterior shipping container in accordance to applicable specifications for any items subject to age control (i.e.: paint, adhesives, rubber, hose assemblies, etc.). If there is a shelf-life for the product, the expiration date must be noted on the outside of all containers. Target is that parts have minimum 80% of shelf life remaining for parts arriving at ISUZU.

27. Welding Requirements

At a minimum, the Supplier must comply with the appropriate industry accepted codes and standards, such as AWS, ASME or MIL-specs, or otherwise specified by the ISUZU/ITCA Engineering team personnel. The Supplier MUST certify and maintain a record of any and all personnel that weld on INAC components per the accepted codes and standards, along with maintaining that certification and associated training records to satisfy INAC's requirements.

27.1 Weld Fixtures

All weld fixtures must be certified either by the fixture manufacturer or the Supplier. Certification requires that the weld fixture be validated by verifying the part dimensions to the Design Record requirements. For characteristics that may result in distortion or nonconformance concerns, the Supplier shall verify the weld process capability. Weld fixtures must be controlled in the Supplier's quality management system.

28. Hydraulic and Pneumatic Component / System Cleanliness

The Supplier shall ensure components and hydraulic assemblies are clean per any listed INAC specifications.

All hydraulic and pneumatic items shall have all fittings, ports, open ends, etc. protected from contamination by closures using caps, plugs, seals, etc..

When applicable, regular sampling and testing of the hydraulic fluid used in test stands shall be conducted with the results available to INAC personnel if requested as part of the PPAP Checklist. The Supplier is responsible for notifying INAC Purchasing and Quality personnel in the event that conforming test results are not achieved.

29. INAC Purchasing Manual

The below highlighted items/topics can be found in the supporting INAC Purchasing Manual (INACManual003) on the Isuzu website for further reference and greater details of additional requirements/expectations of Suppliers: (http://www.iszapurchasing.com).

Revision: 09/12/2022

- Supplier On-Boarding/Program Update Process
- Terms and Conditions
- Purchase Orders (System and Manual)
- **Payments**
- **Tooling and Special Parts**
- **Tooling Maintenance**
- **Engineering Changes**
- Notification of Changes
- Supplier Performance Monitoring/Scorecard





30. INAC Materials Management and Delivery Manual

The below highlighted items/topics can be found in the supporting INAC Materials Management and Delivery Manual (INACManual002) on the Isuzu website for further reference and greater details of additional requirements/expectations of Suppliers: (http://www.iszapurchasing.com).

- **Delivery Rating Criteria**
- Product Traceability Requirements
- Claims Procedures
- Product Delivery/Quality Concern
- **Delivery Corrective Action Requirements**
- Supplier Performance Monitoring/Scorecard
- Packaging and Shipping
- Identification, Preservation, Packaging and Packing
- Distributor Requirements
- Control of Isuzu Supplier Product
- Isuzu Customs/USMCA Operations
- Itochu Automobile America, Inc. (transportation)
- Key Delivery/Shipping Points (informative communication)

You may reference our website at www.iszapuchasing.com

Forms are periodically updated; please always confirm with INAC Purchasing that you are using the most current form or access the Isuzu website!

31. AIAG/ISO/VDA Documents for Usage in Quality Management Systems

Please reference the documents below regarding guidelines for an effective quality management system and located at the AIAG website www.AIAG.org, unless otherwise indicated.

- Production Part Approval (PPAP)
- Advanced Product Quality Planning and Control Plan (APQP)
- Failure Mode and Effects Analysis (FMEA)
- Statistical Process Control (SPC)
- Measurement System Analysis (MSA)
- IATF16949 Standard
- ISO9001 Standard located on the ISO website www.iso.org/standards
- VDA 6 Standard (Europe) located on the VDA website www.vda.de/en/topics

Revision: 09/12/2022