



## **Supplier Quality Requirements**

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# 1.0 Introduction

## 1.1 Scope

These requirements are the minimum mandatory requirements for “approved” production goods and service suppliers to Defiance Stamping Company.

We are committed to providing on time, quality products and services that meet our customers’ needs which requires a commitment from our suppliers to provide the same to us.

## 1.2 Purpose

The purpose of this document is to communicate our requirements with respect to the quality management system of production goods and/or services supplied to Defiance Stamping Company.

Suppliers are required to:

- a) Implement appropriate systems and controls to ensure the 100% on-time delivery of conforming, defect free products or materials.
- b) Manage facilities, processes, quality systems and personnel to consistently produce products and furnish services that meet our needs.
- c) Develop and implement a documented Quality System, including an Advanced Product Quality Planning process, in accordance with the requirements of ISO/TS-16949 and the AIAG Advanced Product Quality Planning and Control Plan reference manuals in order to assure that all requirements are met.
- d) Provide objective evidence that all supplied products and services satisfy AIAG Production Part Approval Process requirements including acceptable process capabilities for Special/Control Characteristics.
- e) Utilize appropriate statistical techniques for on-going process control and improvement (as established in the AIAG Fundamental Statistical Process Control reference manual).
- f) Continuously improve by reducing part-to-part variation and eliminating all waste.
- g) Conduct its operations to and assure that all materials and products provided to Defiance Stamping Company meet or exceed all applicable environmental laws and regulations of the jurisdictions in which the supplier does business. Suppliers must meet the same requirements that our customers demand of us.
- h) Comply with all applicable government statutes, regulations and standards relating to motor vehicle safety or emissions within the territories of use (e.g. MSDS, US FMVSS safety)

## 1.3 Background

These Supplier Quality Requirements are based upon our customer requirements and the latest edition of ISO/TS-16949 Quality System Requirements.

## 2.0 Quality Systems Requirements

### 2.1 General Quality Systems Requirements

Suppliers to Defiance Stamping Company must operate within a comprehensive quality system. Where applicable, suppliers should have a goal to conform to the Technical Specification.

At a minimum, suppliers must provide evidence of third party certification to the ISO 9001:2008 standard. Suppliers will be notified of requirements for Production Part Approval Process (PPAP). Suppliers should also meet the intent of the requirements specified in the following AIAG Reference Manuals: Advanced Product Quality Planning and Control Plan (APQP), Potential Failure Mode and Effects Analysis (FMEA), Measurement Systems Analysis (MSA), and Statistical Process Control (SPC).

Additional requirements are noted in the purchase order and this Supplier Quality Requirements manual. We may communicate other requirements as our needs or the needs of our customers change.

### 2.2 Advanced Product Quality Planning (APQP)

When requested, suppliers must generate an Advanced Product Quality Plan in accordance with the AIAG APQP reference manual for review by the Project Team or relevant Engineering group.

This plan shall include, but is not limited to:

- a) Notification of risks that affect product integrity or the project plan.
- b) Implementation of error-proofing to achieve Zero Defects.
- c) Identification of changes needed to product or process specifications.

### 2.3 Pre-Award Meeting

Suppliers are subject to a Pre-Award Meeting attendance and action plans when required by our customers. Technical, quality, manufacturing, engineering, purchasing, delivery, and business issues may be reviewed during this meeting to provide the supplier with a thorough understanding of requirements.

Under most circumstances, our customers will schedule the meeting and include cross-functional membership as appropriate.

Suppliers shall meet all requirements agreed to at the Pre-Award Meeting as a condition of business award.

### 2.4 Special Characteristics

Special Characteristics are any product or process characteristics that affect safety or compliance with regulations, fit, function, performance or subsequent processing of product.

In accordance with the requirements of ISO/TS-16949, Special Characteristics shall be identified and specifically addressed in the DFMEA, PFMEA, Control Plans, Process Flows, Work Instructions and other associated documents. Designated Special Characteristics may be identified on drawings/specifications or in a separate document that cross-references these characteristics to the drawings/specifications.

Suppliers are responsible to fully understand the usage of their product and also identify any Special Characteristics, as appropriate. Suppliers are also responsible for ensuring that relevant Special Characteristics are explained, understood and controlled by their sub-suppliers.

### 2.5 Process Capability and Control

Suppliers are required to meet the process capability requirements as defined in the AIAG PPAP and SPC reference manuals. The supplier is responsible to ensure process capability and control requirements are documented in their control plan and that capability indices are achieved and improved throughout production.

### 2.6 Sub-Supplier Control

Each supplier is responsible for the control and continuous improvement efforts of its suppliers. However, Defiance Stamping Company reserves the right to visit sub-suppliers.

Suppliers shall require their suppliers of production goods and services to conform to the requirements specified herein and must implement and document appropriate controls.

## 2.7 Supplier Tooling, Gages, and Returnable Containers

Supplier tooling (dies, patterns, molds, special tooling) and specific gages shall be permanently marked with a unique number and company name so that the ownership of each item can be easily identified.

Returnable containers shall be permanently marked with the company name of ownership.

The supplier shall establish preventive/predictive maintenance procedures on all tooling.

Evidence of procedure execution shall be made available upon request. Preventive/predictive maintenance schedules and tool history records shall be documented and available for review.

No supplier tooling shall be sold or consigned to another entity without proper notification and written consent from Defiance Stamping Company. In such cases, or in case of tooling relocation to an alternate supplier location or facility, it is the supplier's responsibility to contact Defiance Stamping Company regarding potential re-PPAP requirements prior to moving the tool.

## 2.8 Early Production and Pilot Part Requirements

Suppliers are required to meet Early Production/Pilot Part requirements. These requirements will be communicated by Defiance Stamping Company when required. Required documentation (e.g., Control Plans) must be kept current.

Suppliers are expected to clearly identify "early production" or "pilot parts" to ensure that the parts are not mixed with "regular" production parts. Suppliers are also expected to work closely with Defiance Stamping Company personnel to minimize unnecessary obsolescence.

Labeling is required and shall be differentiated from regular production shipping labels, unless the parts are already PPAP approved. The Supplier Identification, Part Number, and Quantity must be clearly displayed on the part-packaging label to ensure easy, visible segregation of containers/parts.

## 2.9 Manufacturing Process Review

A systematic review of a supplier's manufacturing process may be conducted at the supplier's facility prior to PPAP submission. (e.g., Run at Rate).

## 2.10 Production Part Approval Process (PPAP)

All production part sample submissions shall be in accordance with the AIAG PPAP manual requirements as stipulated by the customer requirements or the Quality department. Level 3 PPAP, supplied electronically, is the default submission level unless otherwise agreed upon. Supplier PPAP packages shall include all component (internal and sub-supplier) PSWs at a minimum and may require additional PPAP documentation. PPAPs shall be submitted to Defiance Stamping Company and any associated PPAP sample parts shall be clearly labeled as such. Full or interim approved PPAP is required prior to shipping parts for production. Any production shipments received prior to obtaining this approval will be rejected. Any exceptions must be documented and approved with deviation documentation.

## 2.11 Changes to Approved Product and Processes

Suppliers and sub-suppliers are not to make any unauthorized changes to a product (e.g., material, component, subassembly, etc.) or the process used to produce a product that has been previously PPAP approved by Defiance Stamping Company. This includes changes to Process Control Plans.

Notification and submission requirements are clearly outlined in Section 1.3 of the AIAG PPAP manual.

Any such change made without prior written approval would not only constitute a breach of our purchase order terms and conditions, but would also be a serious breach of standard automotive practice. Suppliers who do not adhere to this requirement will be held responsible for all damages, losses and liabilities attributable to any unapproved change made by you or one of your suppliers (e.g., customer rejections, customer line stoppage penalty fees, field failures costs, warranty expense). In addition the supplier may be placed on probationary status until the systemic issue is addressed.

## 2.12 Re-qualification

When required by the customer, the supplier shall inspect and test annually a sample of each active product supplied to assure conformance to specified requirements (e.g. dimensional, material and performance).

These inspection requirements shall be included in the supplier's production control plan. Material testing shall be carried out by a qualified laboratory. Validation documentation shall be on file at the supplier and available upon request. If a nonconformance is found during the annual validation, the supplier must notify Defiance Stamping Company immediately so that appropriate action can be determined and implemented.

Whenever Defiance Stamping Company is required to submit PPAP to the customer, suppliers with PPAP documentation over one year old may be required to re-PPAP as directed.

### 2.13 Certificates of Conformance

A signed certificate of conformance will be maintained on file at the supplier and may be required to accompany each shipment of specified components or materials. The certificate of conformance must contain the actual results of physical testing, measurements and/or analysis specified by the contract confirming compliance with all identified requirements. The supplier should have a system capable of retrieving and submitting the requested Certificate of Conformance within 24 hours.

### 2.14 Special Process System Assessments

Where applicable, system assessment documentation must be submitted for review upon request from Defiance Stamping Company. The CQI-9 Heat Treat System Assessment, CQI-11 Plating System Assessments, or CQI-12 Coating System Assessment, are the general processes where this may apply.

### 2.15 Verification Reviews of Purchased Product

The supplier must allow Defiance Stamping Company, an approved 3<sup>rd</sup> party representative, or any customer the right to verify at the supplier's premises that the product and subcontracted product(s) conform to specified requirements.

### 2.16 Product Identification and Packaging

Each container, rack, box, or pallet of material shipped to Defiance Stamping Company shall be identified. Unique requirements will be identified and documented during a Pre-Award Meeting or other formal communication.

At a minimum, the Supplier Identification must include, Part Number, Quantity, and Batch/Lot Number must be clearly legible. All bar codes must be scanned by the supplier to verify readability.

Identification shall permit traceability back to the specific supplier raw materials lot numbers, as well as the manufacturing, inspection and test records. The supplier should also be able to trace where products made under similar conditions (same raw material lot, same manufacturing line/batch, etc.) were shipped. Suppliers are required to utilize and ship material on a first in first out basis. Sequence of batches must be identified on the packaging label by either a date code or batch/lot number. Safety related identification criteria shall conform to all government regulatory and customer requirements. No exceptions to this requirement shall be permitted unless acknowledged in writing by Defiance Stamping Company

Suppliers shall ensure their products are transported in a manner that prevents damage or deterioration to the product. Documentation detailing proper packaging, cleanliness level, storage, and shipping instructions of each product is encouraged.

### 2.17 Delivery Performance Requirements

The supplier shall provide 100% conformance to the delivery requirements as specified by the Defiance Stamping Company. Costs incurred by Defiance Stamping Company as a result of a delivery nonconformance caused by a supplier will be the responsibility of the supplier.

Upon request, suppliers shall submit corrective action plans for delivery nonconformance.

### 2.18 Contingency Plans

Suppliers are required to prepare contingency plans (e.g. utility interruptions, labor shortages, key equipment failure and field returns) to reasonably protect Defiance Stamping Company supply of product in the event of an emergency, excluding natural disasters and acts of God.

### 2.19 Continuous Improvement

The supplier shall continually improve quality, delivery, cost and other services provided. To aid in fulfillment of this requirement the supplier's organization shall establish, monitor, prioritize, and act upon key performance objectives and targets. The objectives and targets should be established based upon (at a minimum) business plans, management systems, product quality, process capability, and customer satisfaction goals. Actions taken to regain previously sustained levels of performance are corrective actions, not continuous improvement. Defiance Stamping Company reserves the right to visit any supplier site to assess its continuous improvement programs and lean manufacturing practices, and make recommendations for improvement. In addition, we may deploy personnel to focus on a specific improvement issues.

## 2.20 Supplier Problem Solving and Avoidance

Suppliers shall have trained personnel with the ability to quickly and permanently resolve product and process issues using data driven problem resolution tools and techniques. Problem resolution must be conducted using a defined, structured process like the 8-Discipline process, Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) or any process that includes verification of the root cause and validation of corrective action effectiveness.

Data driven techniques should also be used during the process design, verification and validation phases of the APQP process in order to prevent problems with new or changing products and processes.

Product design responsible suppliers must use reliability methods during the product design, verification and validation phases of the APQP process in order to assure the robustness and durability of their product design for the intended application.

## 2.21 Level A Supplier Ratings

Defiance Stamping Company identifies level A suppliers as “suppliers that provide material or service that can have a direct impact on quality of final product”.

On a quarterly basis level A suppliers are evaluated in regard to the following indicators:

- **Delivered product quality,**
- **Customer disruptions and field returns,**
- **Delivery schedule performance,**
- **Special status customer notifications,**
- **And Control of outside processing.**

Based on these indicators, Level A suppliers are rated simply as PREFERRED, ACCEPTABLE or PROBATIONARY on the supplier list.

Meeting an acceptable rating will promote 100% on-time delivery of defect free parts to our customers.

Supplier's who fail to achieve an acceptable rating are addressed accordingly by the President and Quality Manager for appropriate corrective action.

## 2.22 Supplier Incoming Quality Process

A Corrective Action may be issued when Defiance Stamping Company receives material or service that fails to conform to applicable quality and delivery specifications.

Upon receipt of the nonconformance report, the supplier is required to submit a formal, interim 8D report.

At a minimum, this corrective action shall identify the problem, the immediate containment actions that have been implemented to assure nonconforming product is not shipped, and the potential root cause(s) of the problem. Containment must comply with Section 2.23 of this manual.

A completed Corrective Action (8D) must be submitted within the time frame designated.

## 2.23 Containment Requirements

### Containment for New Production Parts

- a) Defiance Stamping Company may require suppliers to perform off-line new production containment.
- b) If applied, suppliers are required to submit inspection data with each lot shipped to the receiving Defiance Stamping Company. This should include variable measurement data, where applicable.
- c) Suppliers shall develop action plans to address capability improvement needs.

### Containment for Nonconforming Parts

Suppliers shall implement containment immediately upon notification by Defiance Stamping Company of a nonconformance. Containment shall include at a minimum:

- a) Submission of a documented action plan for the containment of all parts.
- b) Regular communication of the containment results.
- c) On-site support to Defiance Stamping Company personnel and to the end customers as required.
- d) Utilization of a third party inspection service when circumstances prevent the supplier from providing expedient and efficient containment.

Suppliers are required to accept all costs and charges incurred by Defiance Stamping Company associated with the containment activity such as shipping, handling, processing, reworking, inspecting, and replacing defective material including the costs of value-added operations. If a supplier's defective product makes it through to the customer of Defiance Stamping Company, the cost recovery will become more critical. All associated costs and charges incurred by Defiance Stamping Company will be debited to the supplier.

## 2.24 Product or Process Deviations

It is the policy of Defiance Stamping Company to **not** accept product that does not meet the requirements of the applicable drawings and specifications. Requests for deviations on nonconforming product shall be submitted to the Defiance Stamping Company for review and approval and to obtain prior to shipment. Deviations shall be approved only for a specific time period or quantity of parts.

## 2.25 Warranty and Cost Recovery

Requirements for warranty and cost recovery are identified on Defiance Stamping Company Purchase Orders, if applicable. In some cases, a separate warranty sharing agreement may be required.

## 2.26 Product Safety and Compliance Requirements

Advance Notification of Potential Safety Nonconformities: The Supplier must notify Defiance Stamping Company as soon as reasonably practicable, after discovering any nonconformity relating to the performance of the product, in a way that contributes to unreasonable risk of death, injury or property damage, because of the product's design, construction, or performance. This communication must be in the form of a written notice. Defiance Stamping Company and the Supplier will cooperate fully using a process to identify the cause of the nonconformity and develop a plan for the prompt resolution of the nonconformity.

Regulatory Compliance: The Supplier must be knowledgeable in all applicable government statutes, regulations and standards relating to motor vehicle safety within the territories of use.

Regulatory Notice: The Supplier must provide Defiance Stamping Company copies of any data, materials or information provided to a government entity relating to the products supplied<sup>1</sup> to Defiance Stamping Company, including any test, manufacturing, field performance or warranty data. The Supplier must provide the information within 10 business days from the date of submission to the government entity.

NOTE 1: The Supplier must promptly notify Defiance Stamping Company, if it has provided information to a government, concerning recall of products that are Identical or Substantially Similar<sup>2</sup>, regardless of whether such recall was voluntary or government mandated.

NOTE 2: Identical Or Substantially Similar Motor Vehicle Equipment as defined by NHTSA regulation means an item of motor vehicle equipment sold or in use outside the United States [and its Territories] is identical or substantially similar to equipment sold or offered for sale in the United States [and its Territories] if such equipment and the equipment sold or offered for sale in the United States [and its Territories] have one or more components or systems that are the same, and the component or system performs the same function in vehicles or equipment sold or offered for sale in the United States [and its Territories], regardless of whether the part numbers are identical..

## 2.27 Charges for Supplier Responsible Nonconformance

An appropriate charge may be imposed by the Defiance Stamping Company receiving for the following reasons:

- a) Nonconformance Report or Nonconforming Service.
- b) Nonconforming Product Deviation Requests.
- c) PPAP submission rejections, delays or shipments of unapproved product.
- d) Delivery Performance Failures.

If a supplier believes that they have been unfairly charged for administrative fees, they shall contact Defiance Stamping Company to initiate a dispute resolution process.

## 2.28 Record Retention

Suppliers are required to maintain production part approval process (PPAP) packages, annual layout and validation records, tooling records, traceability records, engineering records, purchase orders and amendments for the length of time that the part (or part family) is active for production and service requirements plus one calendar year or a minimum of 10 years whichever is longer.

Corrective Action records are to be retained for 5 years. Quality performance records such as control charts and inspection and test results are retained for 10 years.

The above time periods are considered "minimum". All retention times shall meet or exceed the above requirements and any governmental requirements.