

A. J. ROSE
MANUFACTURING COMPANY

Supplier
Quality
Assurance
Manual

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INTRODUCTION

A.J. ROSE QUALITY POLICY

We are dedicated to building a World Class organization by:

- Meeting or exceeding customer expectations
- Developing and training team members
- Providing superior quality and delivery performance
- Focusing on continuous improvement

A. J. ROSE ENVIRONMENTAL POLICY

We are committed to:

- complying with applicable environmental laws, regulations and other requirements;
- the prevention of pollution
- the minimization of waste
- the conservation of natural resources.

We have a framework for setting and reviewing environmental objectives and targets. We are committed to communicating our policy to our associates and our community. We are committed to continual improvement.

A.J. ROSE CONFLICT MINERALS POLICY

Conflict Minerals Policy:

AJ Rose will make reasonable efforts to prevent the use of conflict minerals, from the conflict region, in any of its products. All production suppliers are required to demonstrate that they are conflict mineral free (from the conflict region), or disclose their use of conflict minerals and their origins.

Note: AJ Rose Manufacturing Company requires all production suppliers, including suppliers of raw materials, chemicals, components, coatings, platings, etc. to provide annual "Conflict Mineral" reports, due no later than September 15th of each year. Suppliers must obtain current conflict mineral reports/template from <http://www.conflictreesourcing.org/conflict-minerals-reporting-template/> and report at the "Product Level" as appropriate.

AJ Rose Manufacturing Company Prohibited and Restricted Materials Requirements

Consistent with its commitment to contribute to a cleaner, healthier, and safer environment, AJ Rose Manufacturing Company is committed to providing products to our global customers that are REACH and RoHS compliant. Consequently, suppliers must be aware of and adhere to these standards for materials or components supplied to AJ Rose Manufacturing Company.

Materials provided by suppliers may include raw materials (metals, coatings, etc), components, packaging, chemicals and consumable processing materials. It is the suppliers' responsibility to verify that the substances listed on the official REACH and RoHS websites are not used in any products or materials supplied to AJ Rose Manufacturing Company beyond the referenced thresholds. It is also the suppliers' responsibility to verify that they keep current with any and all published thresholds of prohibited and restricted materials and substances. **(Reference # 9 under the scope, page 6)**

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AJ Rose Manufacturing Company Values

- We represent creative and innovative engineering, tooling and manufacturing practices that result in the highest competitive levels of productivity and quality.
- Integrity and trust in our everyday business transactions requires us to always communicate and do what is right.
- Safety for our associates, customers, and suppliers is our most important priority.
- Strive for continuous improvement in our products, our capabilities and our associates to exceed customer expectations.
- Foster a proactive work environment that encourages leadership and supports teamwork, as well as respect for one another.

AJ Rose Manufacturing Company requires suppliers to meet and/or exceed these company values in their business conduct.

To maintain AJ Rose Customers and AJ Rose Manufacturing Company's business and products confidentiality, AJ Rose Manufacturing Company will require each potential supplier, and each existing supplier to sign the Confidentiality and Non-compete Agreement form. This form may come to suppliers from the Cost Estimation department, the Program Managers, or the Purchasing Department. This agreement form must be reviewed and signed by the suppliers upper most management representative or owner and the expectation is that the requirement be driven from upper management down through the suppliers associates.

The A. J. Rose Manufacturing Supplier Quality Assurance (SQA) Process is an integral part of A. J. Rose's supplier base development. The intent is to assure that the material entering our manufacturing facilities satisfy the needs of our internal processes, our external customers and all legal and regulatory requirements. This process is being introduced to our supplier base early in the relationship to ensure that we are selecting and developing suppliers capable of meeting our needs.

Our long term relationship with our supplier base will be dependent upon the cooperative efforts of A.J. Rose and our suppliers in meeting the demands of the SQA Process. As a result of the desire to be a competitive force in the markets we serve, A.J. Rose requests the commitment of our supplier's top management to pledge their organizations to the implementation of quality systems which meet or exceed our SQA requirements.

This manual and revisions have been reviewed and approved for issuance by the A.J. Rose Manufacturing Company Management Team to the selected suppliers for implementation. The A.J. Rose Manufacturing Company Management Team includes: President/CEO, Purchasing Manager, QA Director/QSM, Vice President of Manufacturing, Quality Assurance General Manager, and the Director of Purchasing.

PURPOSE

The purpose of this document is to introduce the SQA (Supplier Quality Assurance) Process as a key step in the supplier base development strategy and to define A. J. Rose Manufacturing supplier quality system requirements. The requirements contained herein are supplemental to, and are not intended to supersede, any P.O. engineering, or material specification requirements.

OBJECTIVES

In this document, quality is defined as “conformance to A. J. Rose expectations”. The objectives are threefold:

1. Achieve a consistent flow of defect-free product to A. J. Rose plants
2. Achieve continuous improvement in all aspects of quality and the customer-supplier relationship
3. Value enhancement of our products and services

Achievement of these objectives makes it possible for suppliers’ products to flow directly into A. J. Rose manufacturing operations without delay and added expense or rejected product. This permits both suppliers and A. J. Rose to achieve other business goals related to cost, productivity, and competitive position.

The desired result of this activity is to eliminate the waste associated with non-value added activities for both parties. This requires a spirit of teamwork.

SCOPE

The SQA Process applies to key suppliers of materials, components, or services incorporated into A. J. Rose Manufacturing products, including key manufacturing tooling suppliers. **This Supplier Quality Assurance Manual is applicable to all suppliers of A.J. Rose Manufacturing including those that are customer directed (directed buy).** This **Supplier Quality Assurance Manual** also includes products which are processed at one A. J. Rose facility and shipped to another.

The supplying plant management is required to:

1. Commit their organization to defect prevention
2. Have an effective continuous improvement activity
3. Establish and maintain an effective quality and environmental system, *certification shall be provided by accredited certification bodies.*
 - a) **Suppliers are required to immediately notify A.J. Rose Manufacturing Purchasing Department if their quality certification:**
 - i. **Has been revoked.**
 - ii. **Has expired without a successful recertification.**
 - i) **If no recertification is planned, the supplier shall inform A.J. Rose Manufacturing Company Purchasing department, at least 3 months in advance.**
 - iii. **Has been temporarily placed on suspension.**
4. Document quality planning
5. Utilize statistical methods in the control of products and processes where applicable.
6. Demonstrate a suitable capability margin

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7. Establish and implement value enhancement activities
8. **Maintain a maintenance plan for equipment, tooling and other resources as applicable to ensure ongoing delivery capability and sustained quality products in the quantities needed and agreed to in order to meet A.J. Rose Manufacturing requirements and A.J. Rose Manufacturing Customer requirements.**
9. **Corporate Sustainability: AJ Rose Manufacturing Company requires suppliers to abide by all legal and regulatory requirements (State and Federal laws) including: maintaining responsible working conditions for their associates (health and safety requirements), responsible environmental practices (minimizing the waste of natural resources, and reduce, reuse, and recycle where practical.), maintain compliance with business ethics laws and regulations, and product / ingredient safety requirements. AJ Rose Manufacturing has zero tolerance for bribery.**

A.J. Rose Manufacturing requires its suppliers and sub-suppliers to adopt and adhere to our minimum expectations towards business ethics, working conditions, human rights and environmental leadership.

A. J. Rose Manufacturing requires its suppliers to adhere to **ISO 9001:2015** at a minimum as the fundamental quality system standard with **the ultimate goal of obtaining certification to IATF 16949:2016** (reference IATF 16949 : 8.4.2.3 in its entirety) , as well as all legal and regulatory requirements as applicable. **A.J. Rose Manufacturing suppliers shall adhere to and pass down all applicable statutory and regulatory requirements to their suppliers in the entire supply chain. The suppliers shall apply the legal requirements of the production location and of the country of use (if named by A.J. Rose Manufacturing), during the APQP phase to all products, processes, or services (internal and external). This process shall be completed at the latest by PPAP submission.** A. J. Rose Manufacturing expectations are specifically defined in this *Supplier Quality Assurance Manual*. **Additional product specific requirements will be addressed in part specific purchase orders.**

A.J. Rose Manufacturing requires its suppliers to have qualified and competent personnel available to perform the suppliers' tasks as needed to provide ongoing quality product, delivery and services.

SQA PROCESS OVERVIEW

The Supplier Quality Assurance Process is activated at the earliest possible time in the relationship with the supplier, preferably during supplier selection activities. A. J. Rose recognizes that management from both companies must commit their organizations to improve quality, and remain involved, for full benefits to be realized.

There are five steps to the SQA Process. These steps are presented in the following order for illustration of the logic of the process. Actual order of execution may vary, and steps may be waived as applicable in individual cases. The process steps are the following:

1. Supplier Evaluation
2. Production Process and/or Tooling Planning and Verification

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3. Performance Measures
4. Quality/Environmental System Assessment
5. Continuous Improvement

Section 1: SUPPLIER SELECTION

Supplier selection will follow the A. J. Rose Manufacturing Supplier Selection procedure. Purchasing and Quality will collectively approve new suppliers. Representatives from other functions may participate as appropriate.

During the evaluation, general function responsibilities include:

Purchasing: evaluate supplier's business strengths and partnership potential

QA: assess the supplier's quality system potential for meeting A. J. Rose needs.

Following the evaluation, the team will reach an agreement on future activities with the supplier. Sourcing decisions will be by consensus, and it is the responsibility of the purchasing function as the process owner to resolve any disagreements.

It is at this step in the process that the SQA Process should be presented to the supplier.

The supplier shall have a contingency plan (**IATF 16949 section 6.1.2.3**), for each supplier manufacturing/shipping location which may disrupt product flow to AJR, to ensure continued 100% on time delivery of parts, components, or service to A.J. Rose Mfg. specifications in case of equipment failure, labor shortage, or utility interruption. **The supplier shall inform AJR immediately in the event of an actual disaster (e.g. interruption from externally provided products, services, recurring natural disasters, fires....). In these cases, suppliers shall provide AJ Rose access to AJ Rose tools and/or their replacements. Suppliers are required to regularly review and update each contingency plan at a minimum annually. The contingency plan should include comprehensive testing of the recovery actions and should address potential gaps in component/raw materials. The implementation of any change concerning these contingency plans shall be documented and is subject to the AJ Rose Manufacturing ECN management process (see page 12). Annually AJR will send out "Supplier – Sub-supplier Mapping and Risk Assessment – Contingency" assessments to key suppliers. These require annual review/update and return to AJR for updates to AJR contingency review and planning processes.**

Section 2: PRODUCTION PROCESS PLANNING AND VERIFICATION

A team effort between A. J. Rose and the supplier is encouraged to achieve compatibility between the specification/print and supplier's process (both A.J. Rose and our suppliers should be open to suggestions that may improve the process and/or reduce waste and/or costs). By properly addressing this issue early and developing a mutually agreed upon specification, both parties will avoid waste.

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Initially, a specification/print will be issued by A. J. Rose engineering, based on A. J. Rose requirements. These specifications and/or prints usually emphasize characteristics which require special control to ensure customer satisfaction, adherence to safety/regulatory requirements, and/or efficient allocation of planning and control sources. Special characteristics are marked on the specification and/or print by using the applicable symbols.

A.J. Rose Manufacturing generally identifies special characteristics as:

- **Critical Characteristics (C)**
- **Significant Characteristics (SC)**
- **Pass Through Characteristics (PTC)**
- **Process special characteristics (P), or (AJR)**
- **Other Special Characteristics or Significant Characteristics, including product-safety related characteristics as defined by A.J. Rose Manufacturing customers, will be referenced in AJ Rose/ AJ Rose customer blue prints.**

These characteristics will be identified in the project planning phase and may be communicated via A.J. Rose Manufacturing prints, special characteristics agreement form, requests for quotes, or other communications during APQP phase, and prior to PPAP approvals. Suppliers shall identify and mark special characteristics in all relevant product and process documents, such as drawings, FMEA, risk analysis, work instructions, control plans, inspection plans, etc.

Suppliers are required to have a Product Safety responsible contact who has training identified by the organization or AJ Rose Customer for personnel involved in product-safety related products and associated manufacturing processes. (Reference IATF 16949 4.4.1.2). When AJ Rose Mfg customers identify product-safety characteristics to AJ Rose, AJ Rose will then inform the supplier of the product-safety characteristics and the customers' requirements. (Note As an example: Volkswagen and Volkswagen tier 1 suppliers will require Volkswagen recognized product-safety training.)

Generally, suppliers are expected to identify and control other significant characteristics required for internal process control and/or control of the customer-designated special characteristics. These characteristics should be identified during the quality planning process by a cross-functional team based on experience, FMEA, **risk analysis**, etc. Any changes to this process outside the approved process require written A.J. Rose approval or waiver.

Once the specification is communicated to the supplier it becomes the supplier's responsibility to prove the process is capable of manufacturing the product. Suppliers are strongly encouraged to participate in design reviews with the appropriate A. J. Rose design and manufacturing functions as a part of achieving specification manufacturability. To document specification-process compatibility, suppliers will be expected to complete **a cross functional team feasibility form** "Team Feasibility Commitment." This feasibility commitment should be completed before final contract approval by the **supplier and will be requested by AJR Program Managers, estimators, and/or purchasing.**

Feasibility including capacities, reference IATF 16949 8.2.3. The supplier shall analyze all technical documents (e.g. drawing, specifications, environment, statement of work, commodity specific and customer specific requirements, etc) as well as the purchasing Terms & Conditions

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and this Quality Assurance Manual as part of a contract review. The requirements are to determine and confirm:

- The feasibility of the design (suppliers with design responsibility, including process design)
- The ability to manufacture, including capacity confirmation.
- The ability to measure, achieve and sustain process capability for special characteristics, especially product safety characteristics.
- Packaging and shipping shall also be considered.

AJR reserves the right to conduct joint detailed technical review/verification with appropriate supplier representatives prior to final sourcing award. The confirmed feasibility study should be part of all part approval reports include those resulting from product/process changes (see Engineering Change Notice (ECN) section).

All tooling for manufacturing, testing or inspection equipment belonging to AJ Rose shall be permanently marked to clearly show that they are property of AJ Rose or of the customer of AJ Rose. Any exceptions to this rule must be a written agreement between supplier and AJ Rose at the time of PPAP. These tools shall only be used for AJ Rose products unless an authorization in writing exists.

Customer specific requirements (IATF 16949 section 4.3.2): Suppliers are expected to comply with specific requirements of AJ Rose customers. General customer specific requirements are already included in this Supply Quality Assurance Manual and shall be implemented. Additional customer specific requirements issued by AJR customers will be communicated on a project basis. Their application will be subject to an agreement between AJR and the supplier.

Specification-process compatibility shall be verified per requirements set forth in the *Production Part Approval Process* (PPAP) reference manual and the *Supplier Quality Assurance Manual* unless other arrangements are made with the receiving location

Suppliers will be required to provide evidence of documented quality planning through the development and implementation of the following documents, and the documents should be Part Number/Part Family and Process specific. **Product planning shall include proto-type, prelaunch, and serial production (including service) as agreed to with AJ Rose at APQP planning, with AJR Program Managers. This is because some AJ Rose customers require control plans and PFMEAs for each stage of product development.**

- *Process Flow Chart (IATF 16949 section 8.3.5.2)*

An illustration showing each step of the process and location of all controls which assure a quality product.

- *Process Failure Mode and Effects Analysis (FMEA) (IATF 16949 8.3.5.2)*

A detailed description of what can go wrong and where in the process. By ranking these failures the supplier will be able to prioritize quality planning activities. Other means of prioritizing failure modes may be considered acceptable substitutes. **Risks shall be minimized by introducing appropriate**

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measures. PFMEA shall be used for all phases of the product life, such as design, production, customer usages, as well as recycling and waste disposal. FMEAs are used as a continuous improvement tool and shall be developed and/or revised in the following cases:

- Development/production of new parts
 - Introduction of new manufacturing methods.
 - Relocation of plants
 - Drawing changes
 - Process changes, including process improvements
 - If defects occur
 - And lessons learned.
- Cleanliness (IATF 16949 8.2) Cleanliness of the product and packaging of all supplier processes and AJR products (storage, handling, transportation, processing, etc) must be taken into consideration to avoid contaminations such as dirt accumulation, cross contaminations with other parts and processes, etc.

- Design Failure Mode and Effects Analysis (DFMEA)

Applies to design responsible suppliers only.

- Process Control Plan (IATF 16949 section 8.3.5.2, 8.5.1.1, and appendix A)

The supplier shall develop control plans (in accordance with appendix A of IATF 16949) at the system, subsystem, component, and/or material level for the relevant manufacturing site and all product supplied including those for processes production bulk materials as well as parts. Family control plans are acceptable for bulk material and similar parts using a common manufacturing process. The supplier shall have a control plan for pre-launch and production that shows linkage and incorporates information from the DFMEA (if provided by AJ Rose/ AJ Rose Customer) , process flow diagram, and the manufacturing process risk analysis outputs (such as PFMEA). Control plans shall include controls used for manufacturing process control, including job set up verifications, first-off/last-off comparisons (as applicable), methods used for monitoring of control, special characteristics, AJ Rose /AJ Rose customer required information if any, specified reaction plans when nonconforming product / process is detected or the process becomes unstable. Control plan shall be reviewed and updated as required if the supplier determines nonconforming product has shipped to AJ Rose, any change occurs affecting the product, manufacturing process, measurements, logistics, supply sources, production volume changes, after customer complaints, and at a set frequency based on risk analysis (FMEA) (see annex A of IATF 16949).

Note: Safety product characteristics must have special controls applied to them throughout the entire process.

- Plant Layout

Floor plan of facility that shows material handling plan which includes the following” Receiving, material handling and movement, operations/fabrications, inspections, shipping, and deliver to A.J. Rose Manufacturing Co.’s dock. This should also include any additional offsite secondary operations performed while product is in the suppliers control (i.e. rework, strip, recoat, etc)

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- Production Part Approval Process (PPAP) documentation

Machine and/or tool capability studies, rack mapping, etc may be required from suppliers. These are AJ Rose customer specific requirements and will be discussed with suppliers during APQP planning as needed.

The documents identified above are used for the submission of samples to A. J. Rose Manufacturing facilities for new or revised product approval, and will always be to submission level III unless otherwise specified.

Resubmission of PPAP documents will be required as specified by A.J. Rose Purchasing, Quality, and/or Program Management.

-Lab Scope and Quality Certification:

External laboratory: External/commercial/independent laboratory facilities used for inspection, test, or calibration services by the organization shall have a defined laboratory scope that includes the capability to perform the required inspection, test, or calibration, and either: the laboratory shall be accredited to ISO/IEC 17025 or national equivalent and include the relevant inspection, test or calibration service in the scope of the accreditation (certificate); the certificate of calibration or test report shall include the mark of a national accreditation body; or there shall be evidence that the external laboratory is acceptable to the customer. (Reference IATF 16949 7.1.5.3.2). A copy of the suppliers latest and greatest Quality Certification must be included in PPAP package.

The supplier shall approve externally provided products and services per ISO 9001, section 8.4.3, prior to submission of their part approval to AJ Rose Mfg.

The supplier shall ensure that externally provided processes, products and services conform to requirements. The supplier shall determine the controls to be applied to externally provided process, products and services when: products and services from external providers are intended for incorporation into the suppliers own products and services; products and services are provided directly to AJ Rose by external providers on behalf of the supplier; a process, or part of a process, is provided by an external provider as a result of a decision by the Supplier.

The Supplier shall include all products and services that affect AJ Rose requirements such as sub-assembly, sequencing, sorting, rework, and calibration services in the scope of their definition of externally provided products, processes, and services.

The Supplier shall ensure that externally provided processes, products and services do not adversely affect AJ Rose's ability to consistently deliver conforming products and services to its customers. The supplier shall ensure that externally provided processes remain within the control of its quality management system; define both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output; take into consideration: the potential impact of the externally provided processes, products and services on the AJ Rose's ability to consistently meet customer and applicable statutory and regulatory requirements; the effectiveness of the controls applied by the external provider; determine the verification, or other activities, necessary

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to ensure that the externally provided processes, products and services meet requirements.

The Supplier shall have a documented process to identify outsourced processes and to select the types and extent of controls used to verify conformity or externally provided products, processes, and services to internal (Supplier) and external customer requirements.

The supplier shall document their process to ensure that purchased products, processes, and services conform to the current applicable statutory and regulatory requirements in the country of receipt, the country of shipment, and the OEM customer-identified country of destination, if provided.

If AJ Rose defines special controls for certain products with statutory and regulatory requirements, the Supplier shall ensure they are implemented and maintained as defined, including at sub-suppliers.

A. J. Rose Manufacturing places major emphasis on the achievement of statistically stable and capable processes. The supplier is responsible for proper application of statistical techniques and for proving the stability and capability of special characteristics. As required, suppliers are expected to submit evidence of capability to receiving locations on a periodic basis, and at a minimum, annual validation with layout is required.

Records shall be maintained for the length of time the part is active, **plus service**, plus one calendar year. **Reference IATF 16949 section 7.5.3.2.1. This requirement does not replace legal requirements.**

Guidelines for the development and application of quality planning, production part approval, and statistical methods may be found in the following (AIAG) reference manuals:

<i>APQP</i>	-	<i>ADVANCED PRODUCT QUALITY PLANNING AND CONTROL PLAN</i>
<i>FMEA</i>	-	<i>POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS</i>
<i>PPAP</i>	-	<i>PRODUCTION PART APPROVAL PROCESS</i>
<i>SPC</i>	-	<i>STATISTICAL PROCESS CONTROL</i>
<i>MSA</i>	-	<i>MEASUREMENT SYSTEMS ANALYSIS</i>

Tooling Suppliers may be exempt from the entire, or portions of this section based upon recommendations from Purchasing and the Engineering departments at A. J. Rose. **Tooling suppliers must request this exemption if they want to have a waiver in writing in their files.**

ECR/N = Engineering Change Request/Notice Process. (IATF 16949 section 8.2.4/8.5.6)

Changes must be submitted and approved prior to implementation of production start up. Any change to a supplier product, process, or any of its characteristics is considered an engineering change. The supplier shall submit a deviation or change request to A.J. Rose Manufacturing Co. Quality, Purchasing, or Engineering department for processing. **The effects of any change, including those changes caused by sub-suppliers, shall be assessed, verified and validated to ensure compliance to AJR requirements prior to implementation. The evidence of risks associated with the change**

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shall be documented and assessed. Any intended change, deviating from the latest PPAP approval, shall be communicated as soon as possible to AJR to allow for a timely review and approval by AJ Rose and AJ Rose Customer(s). Authorization to ship production material after a change implementation requires a new PPAP Approval.

Product Safety and product liability are particularly significant for companies in the automotive industry. The supplier has producer responsibility (product liability) for their parts and processes, including parts or processes from sub-suppliers, which AJ Rose purchases to build their final products. Therefore, in order to prevent product liability risks, it is the responsibility of the supplier to do everything in their power, in terms of organization and technical matters, to guarantee the product safety. The supplier shall have a documented process for “Product Safety” related products and manufacturing processes. A.J. Rose requires their suppliers to designate a Product Safety Representative (PSR) to be in charge of all related tasks described in IATF 16949 section 4.4.1.2. Furthermore, the supplier shall apply these requirements to their supply chain.

Request for change by the supplier.

If requesting a change, the supplier will be responsible for all associated expenses including any expenses that may be incurred down stream. A.J. Rose Manufacturing Co. will not accept supplier cost increases due to an engineering change unless authorized and approved by A.J. Rose Manufacturing Management Team. In an effort to foster continuous improvement activities within our supply base, A.J. Rose Manufacturing Co. may share the cost savings on supplier initiated design and process improvements.

Section 3: SUPPLIER ASSESSMENT AND QUALITY IMPROVEMENT PLAN

Suppliers having ISO 9001:2015/IAF 16949 registered quality systems, certified by a IATF recognized Certification Body, may be exempt from this step.

Suppliers participating in the SQA Process are requested to make their quality systems and processes available yearly, at a minimum, for a Supplier Assessment to be conducted by A.J. Rose Audit Program Manager, or designate to determine the state of their quality systems relative to **ISO 9001:2015 / IATF 16949 2016** requirements and any applicable legal and regulatory requirements. At a minimum, the supplier will also be requested to complete self-assessments (CQI-12, QSI-11, CQI-9) yearly. By conducting an in-depth assessment of their operations, the supplier will be able to develop a Quality Improvement Plan which addresses deficiencies identified during the assessment. Suppliers who are not certified/registered, will be audited yearly at a minimum by A.J. Rose Audit Program Manager, or designate.

The Quality Improvement Plan should detail:

- specific actions to be taken
- timetable for implementation
- persons responsible for actions

Suppliers will be requested to submit periodic progress reports to Audit Program Manager, or designate as they relate to the Quality Improvement Plan.

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Suppliers in the process of registering their quality or environmental systems may submit action plans, timelines, or other appropriate documentation to fulfill this request.

A.J. Rose Manufacturing reserves the right to participate in audits and assessments of suppliers and sub-suppliers regarding supplier risk assessments, quality management systems development, processes, products, etc. These audits and assessments may be carried out with jointly with the supplier and: AJ Rose, AJ Rose customers, and/or a third party assigned by AJ Rose. Advance notice will be given. AJ Rose participation in a sub-supplier audit does not absolve the AJ Rose supplier from their responsibility to properly monitor and develop the sub-supplier(s). (Reference IATF 8.4.2.4.1).

Section 4: PERFORMANCE MEASUREMENT

Once approved for production, the supplier will be added to a supplier performance monitoring system. This report allows both A. J. Rose and the supplier to track ongoing performance.

The rating system is predicated on quantifiable data and measures supplier performance for shipments received during the rating period. At minimum, the following performance indicators will be monitored.

- **Delivered quality** A. J. Rose Manufacturing monitors non-conformances on a “per instance” basis. A. J. Rose Manufacturing reserves the right to charge the supplier for non-conforming/rejected materials, products, and/or services. (reference IATF 16949: 8.4.2.4) **These include:**
 - ***Delivered product conformity to the requirements**
 - ***Quality infractions**
 - ***delivery performance**
 - ***number of occurrences of premium freight**
 - ***Special status customer notifications related to QA or delivery issues**
 - ***dealer returns, warranty, field actions and recalls**

- **In regards to Delivery performance**, including premium or excessive freight A. J. Rose Manufacturing monitors non-conformances on a “per instance” basis. A. J. Rose Manufacturing reserves the right to charge the supplier for premium and/or excessive freight costs.

AJ Rose Manufacturing Purchasing Department will send out scorecards to AJ Rose key suppliers on a monthly basis.

Suppliers with non-conformances in our system are reviewed by appropriate A. J. Rose Management monthly during our management review process. Suppliers are notified upon findings of non-conformances via the A. J. Rose Nonconforming Material Review and Disposition process. Suppliers that are issued NCM’s may be required to have an improvement action plan with or without audits completed by the A. J. Rose Audit Program Manager or designate.

In all cases, the **Quality and Delivery** performance goals are 100%. **The expectations are always zero defects.** Suppliers performing at less than 100% in any rating category are expected to implement self-improvement activities for deficient areas.

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- Suppliers performing 80% or less for delivery issues will be required to respond with a formal improvement plan. This will be communicated by AJ Rose purchasing staff.
- Formal corrective actions in the form of an 8D may be required for each quality issue. This will be communicated by AJ Rose quality staff member.

Section 5: QUALITY ENVIRONMENTAL SYSTEM ASSESSMENT

Suppliers with ISO 14001 certification may have this step waived upon submission of their current registration certificate. ISO 9000 registered suppliers may also have this step waived or substantially reduced. Suppliers working toward system registration may also have this step waived by submitting appropriate documentation such as action plan or Gantt charts, etc.

An integral part of the SQA Process is the Quality/Environmental System Assessment. The Audit Program Manager (APM) or designee will visit the supplier to conduct a detailed evaluation of the quality/environmental system. Timing and frequency will be determined by the APM, and consideration should be given to such factors as certification status, performance, plant request, location/management changes, etc.

The evaluation will assess the supplier's system adequacy with regard to all applicable elements/sections of the quality/environmental system requirements. During the evaluation, each element/section will be assessed to determine the level of implementation and effectiveness. The quality/environmental system will be reviewed to assure that it is fully documented and that the documented procedures are being followed.

The results of the evaluation will be reviewed with the supplier and a quality improvement plan will be required for identified system deficiencies.

A formal audit report should be completed within 30 working days of audit completion. At a minimum, distribution will be as follows:

1. Supplier plant
2. Receiving plant(s)
3. Supply manager, or purchasing function, as appropriate.

Typically, A. J. Rose Manufacturing requires supplier submission of improvement plans within 20 working days of receipt of the audit report. The APM will follow up on the required activities either through the mail or during site visits--whichever is applicable to the particular situation.

A. J. Rose assessment of quality/environmental system adequacy does not infer the supplier's quality/environmental system will meet the requirements of other second or third party assessments to the ISO 14001 standards.

MSDS sheets for all chemicals and materials used to make A.J. Rose Mfg. Co. parts must be forwarded to specific plant engineer and updated whenever the MSDS sheets are updated by the manufacturer. Suppliers **are required to be** capable of IMDS entry (www.mdsystem.com), or make

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AIAG EVL (Automotive Industry Action Groups, End of Vehicle Life) spreadsheet information available. **A.J. Rose Manufacturing anticipates customers requiring China MDS data entry in 2018 and going forward. Suppliers are required to be able to facilitate both IMDS and CAMDS as requested. Suppliers shall meet applicable legal, environmental and import regulations (e.g. EU REACH (EC) no. 1907/2006, EU ELV Directive 200/53/EC, China requirements for prohibited substances on automobiles GB/T 30512-2014 ...), AJ Rose Manufacturing Company Prohibited and Restricted Materials Requirements and general packaging specifications apply to these requirements. AJ Rose requires suppliers to maintain their environmental reporting to AJ Rose whenever the GADSL list (Global Automotive Declarable Substance List is located at: www.gadsl.org) , Candidate List (the candidate list is located: <https://echa.europa.eu/candidate-list-table>), etc are updated.**

Section 6: CONTINUOUS IMPROVEMENT ACTIVITY

After required activities have been completed and the supplier has become approved, it is important for the supplier to maintain ongoing improvement in all aspects of the business, including quality, delivery, service, pricing, and communications.

A. J. Rose Manufacturing suppliers are expected to maintain documents and records demonstrating an effective value enhancement and continuous improvement system. As we work together and these activities lead to improvement...

- *Waste is reduced because of defect-free production.*
- *Quality costs decrease due to less inspection and waste*
- *Productivity increases because additional product is manufactured in the same time increment.*
- *Delivery performance improves due to more reliable material flow*
- *Price reductions become possible because of lower operating costs.*
- *Competitive position improves because of improved quality, value, delivery, and reputation.*
- *Increased market share becomes possible*
- *Probability of survival increases.*

A. J. Rose Manufacturing is committed to supplying its customers with world-class quality and achieving continuous improvement. Since the supplier plays such an enormous role in making this a reality, A. J. Rose requests a commitment from the supplier to achieve the same goals. In return A. J. Rose is committed to work with the supplier to achieve higher quality and lower costs for all parties.

Section 7: NONCONFORMING/REJECTED MATERIALS, PRODUCT, AND SERVICES
(IATF 16949 section 8.7)

Corrective actions for rejected materials, product and/or services must be acted upon and written actions submitted in the form of an 8_D to A.J. Rose Manufacturing Co. upon request. A.J. Rose Manufacturing Co. provides suppliers with a Supplier Authorization for Disposition of Defective Materials notifications and/or non-conformance report. It is A.J. Rose Manufacturing Co's expectation that suppliers respond to these notifications within 48 hours of receipt. If receipt of signed Supplier Authorization for Disposition of Defective Materials notification is not submitted by the supplier within the required time, A.J. Rose Manufacturing Co. reserves the right to disposition the defective materials, product, and/or services as deemed appropriate and charge the supplier for such materials, product, and/or services.

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A \$100.00 administrative/handling fee may be assessed to the supplier for each non-conformance or rejected materials, products, and/or services notification issued by A.J. Rose Manufacturing Co.

It is the suppliers responsibility to remove non-conforming materials and/or products from A.J. Rose Manufacturing Co's premises within 5 days of notification. Failure to remove non-conforming materials and/or products with the 5 days may result in A.J. Rose Manufacturing Co. arranging for collect return of such materials and/or products. Such failure resulting in additional action necessary by A.J. Rose Manufacturing Co. to arrange for collect return may result in additional administrative fees. Supplier must provide 24-hour advance notification of pickup of such non-conforming/rejected materials and/or products.

Non-conforming/rejected materials and/or products returned to the supplier will be charged back to the supplier. Additional costs may be incurred by the supplier for such non-conforming/rejected materials and/or products. These charges include but are not limited to labor, sorting, rework, testing, freight, part value including value added operations, press time, non-conformance administration fees, customer penalties assessed to A.J. Rose Manufacturing Co., etc.

Identification of certified parts or packaging after a complaint: The clean point information shall be determined and communicated at once to the person in charge at AJ Rose (generally the Quality Assurance Engineer/Specialist that issued the complaint, or the AJ Rose purchasing agent). Every packaging unit of certified shipments shall be clearly identified as agreed to with AJ Rose until permanent corrective actions have been implemented and verified successfully. These certified labels need to be on the outside, front and back of each container for easy identification.

For rework and repair of products, the supplier shall have a documented process and conduct a risk analysis (e.g. FMEA). Any repair or rework not included in the agreed control plan during the PPAP phase is considered as a process change. Reference the Engineering Change Notice section. AJ Rose shall be notified via the requested deviation form. Written AJ Rose approval is required prior to implementation of any product/process changes.

Suppliers are required to have a documented process for disposition of nonconforming products not subject to rework or repair. For product not meeting requirements, the supplier shall verify that the product to be scrapped is returned to AJR clearly identified as "SCRAP" and include the part number, lot #, and date. Nonconforming material must be tagged with red tag. Suppliers shall not divert nonconforming product to service or other use without AJ Rose prior written approval. AJ Rose has a strict dropped parts policy. Any part that is dropped is to be deemed no good and returned as "Scrap" as identified here. Suppliers shall guarantee conformance to this practice and shall guarantee that any and all sub-suppliers will conform to this practice. Evidence of communication of this policy to sub-suppliers shall be retained and presented to AJR when requested.

Lessons Learned (IATF 16949 section 6.1.2.1/ 7.1.6/ 10.3), Supplier shall have a process to document and share knowledge, generally gained by experience within the organization. Suppliers shall consider knowledge gained out of former projects, customer claims, recall actions, supplier complaints, change and deviation requests, audits, rework, repair, and scrap. Lessons learned should be reviewed and included in the first steps of new projects. This process

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shall keep the focus on avoiding defects instead of detecting defects in the entire supply chain. The effectiveness is proved by continuous improvement of the production process reliability, supply quality, and delivery performances.

Section 8: CERTIFIED PRODUCT

Certified Product is a designation for material at A. J. Rose Mfg. Co by definition, certified product is: “Material that has been established by the Purchasing and Quality Assurance Managers to require no receiving inspection”. This material can also be termed “Dock to Stock”.

Criteria for Certified Product are as follows:

- A) Material must be from an Approved Supplier on the A. J. Rose Production Material approved supplier list. To be a certified supplier, at a minimum, those suppliers must be certified to **ISO 9001:2015 / IATF 16949: 2016**
- B)

Section 9: LOT TRACEABILITY AND PRODUCT IDENTIFICATION

A.J. Rose Manufacturing Co. requires full lot traceability from each of our suppliers, the following is documentation that A.J. Rose Manufacturing Co. requires for lot traceability and it shall be made available at the suppliers’ location and be provided to A.J. Rose Manufacturing Co. upon request. Inform A.J. Rose Manufacturing Co. of what lot #, PO #, or other tag information you require to fulfill these lot traceability requirements. The documentation required by commodity group is as follows:

Product identification and traceability: The supplier shall set up a defined process which allows the traceability of a single part, batch production, or at a maximum 8 hours of production all the way back to each production step and inspection through the entire supply chain, down to the raw material / purchased parts. The traceability plan must be agreed with AJ Rose on the supplier’s initiative and installed in sufficient time before PPAP submission. Product identification must be visible on the front and outside of each container. AJ Rose specific requirements for traceability especially for “product-safety related products” as defined by AJ Rose Manufacturing Co. must be taken into consideration.

1. **Raw Materials** (Steel Coils, Steel Blanks) Per coil, per part #, per lot.
 - Measurement data (Coil ID, Coil Width, Coil OD, Thickness) (Blanks Data)
 - Material Certification (A.J. Rose Mfg. requires material certification be sent in with each coil, part #, or lot): Including chemical and physical analysis, Hardness
 - Must have traceability to Master Coil/Heat #
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
 -
2. **Components** (Fasteners, Hubs, Spacers, Bearings, misc. stampings, etc): Each lot #, each part #, each shipment must be able to be traced back through the supplier’s process to the raw components/materials.:

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- Measurement data, the area or characteristics to be inspected will be agreed upon by the supplier and AJR for each part number.
 - Material Certification (A.J. Rose Mfg. requires material certification be sent in with each coil, part #, or lot): Including chemical and physical analysis, Hardness when appropriate
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
3. **Coating Services:** Each part number, each coating requirement must be able to be traced back through supplier's process to raw components:
- Monthly Cpk data for coating thickness or Lot Certification for coating thickness (or specification). The area to be inspected will be agreed upon by the supplier and A.J. Rose Mfg. for each part number at the time of PPAP.
 - Annual coupon testing at the minimum coating thickness requirements (per customer coating specifications)
 - Annual CQI 12 Self Assessment
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
4. **Plating Services:** Each part number, each plating requirement must be able to be traced back through the supplier's process to raw components:
- Monthly Cpk data for plating thickness or Lot Certification for plating thickness. The area to be inspected will be agreed upon by the supplier and A.J. Rose Mfg. for each part number at the time of PPAP.
 - Annual coupon testing at the minimum plating thickness requirements (per customer plating specifications)
 - Annual CQI 11 Self Assessment
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
5. **Sorting/Packing Services:** Each part number, each month must be able to be traced back through supplier's process to raw/unassembled components:
- Scrap Report with details on scrap codes
6. **Weld/Braze:** Each part number, each shipment must be able to be traced back through supplier's process to raw/unassembled components.
- Measurement data
 - Push out test data
 - Torque to turn test data (when specifically requested by Program Manager/designee at time of PPAP)
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
 - Annual CQI -15 Self Assessment (welding)
7. **Heat Treat:** Each part number, each heat lot, each shipment must be able to be traced back through the supplier's process to raw/unheat-treated components.

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- Case Depth Thickness inspection results
 - Hardness
 - Micrographs (when specifically requested by Program Manager/designee at time of PPAP)
 - Annual CQI 9 Self Assessment
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
8. **Deburr/Grinding:** Each part number, each shipment must be able to be traced back through supplier's process to un-deburred/ungrounded components.
- Measurement data: the area or characteristics to be inspected will be agreed upon by the supplier and AJR for each part number.
 - Monthly Cpk data for required characteristics which will be determined by A.J. Rose Mfg. Co. Program Management/designee at the time of PPAP.
 - Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).
9. **Misc. Supplier commodities:** Will be addressed by A.J. Rose Mfg. Co Program Management on an individual basis at the time of Prototype/PPAP
- Annual MMOG (Materials Management Operation Guideline) assessment as provided by A.J. Rose Manufacturing Co. (this may be waived by the AJ Rose Quality Manager).

Safe Launch: Safe launch may include increased inspection frequencies, 100% visual or attribute inspection, etc. Safe launch planning is designed to protect AJ Rose, AJ Rose suppliers, and AJ Rose customers. Suppliers shall implement a safe launch inspection plan to ensure their process is providing the desired output without defects. Safe launch plans, including duration, shall be agreed during the planning phase of new programs.

- C) Supplier Quality Rating is checked through non-conformance reports and on time delivery reports; other metrics may be utilized as appropriate.

Appendix A
REFERENCE STANDARDS

The latest editions of the listed reference documents are available at:

AIAG Phone: (248) 358-3003, the websites identified, or The American National
Standard Institute (ANSI) Phone: (212) 642-4980

1. SPC - Statistical Process Control
2. FMEA - Failure Mode and Effects Analysis
3. APQP & CP - Advanced Product Quality Planning and Control Plan
4. MSA - Measurement Systems Analysis (Gauge R & R)
5. PPAP - Production Part Approval Process
6. IMDS – International Material Data System: www.mdssystem.com
7. AIAG EVL – Automotive Industry Action Group, End of Vehicle Life
8. REACH - <http://echa.europa.eu/>, RoHS - <http://www.rohsguide.com/>
9. CONFLICT MINERALS (iPOINT) - <http://www.conflict-minerals.com/>
CONFLICT MINERALS CURRENT TEMPLATE: www.conflictreesourcing.org/conflict-minerals-reporting-template/
10. [ISO 9001/IATF 16949 Quality Management System – Requirements/
Automotive Quality Management System Standard](#)
11. ISO/IEC 17021 Conformity assessment -- Requirements for bodies providing audit and certification of management systems
12. ISO/IEC 17025 General Requirements
for the Competence of Calibration and Testing Laboratories
and other ISO documents

Supplier acknowledgement

I have read and understand the AJ Rose Manufacturing Company Supplier Quality Assurance Manual (rev 09) and the A. J. Rose Manufacturing Company Standard Terms And Conditions posted at www.ajrose.com under “About Us”.

The signature of an upper management representative of the supplier location is required.

Name

Title

Signature

Date

External Supplier Company Name