

# Supplier Handbook

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## 1. Quality Expectations

Suppliers to KSR International shall establish and maintain a documented quality system at a minimum 3<sup>rd</sup> party certified to ISO 9001 unless specified otherwise by customer requirements. Vendors not third party certified to either ISO 9001 or IATF 16949 will require approval from KSR International's customer, which may include on-site visits and customer audits. [KSR Supplier Development ensures suppliers not certified to IATF 16949 are in compliance to the Minimum Automotive Quality Management System Requirements \(MAQMSR\) through 2<sup>nd</sup> party audits defined in section 1.9.](#)

KSR International requires that all components conform to the print for dimensional and material specifications, and that all inspections are available upon request. Suppliers are not to rely on KSRs receiving inspection function to determine acceptability of the supplied product.

### 1.2. Environmental Expectations

Suppliers to KSR International shall establish and maintain at a minimum a documented environmental policy similar to ISO 14001. Suppliers are strongly encouraged to pursue ISO 14001 certification.

Suppliers to KSR International shall cascade KSR's environmental expectations to their Sub suppliers.

### 1.3. KSR Special Designations

KSR International has developed a designation system for special or critical characteristics on the part prints. These designations are vital to the performance of the component in the assembly. The designations are as follows:

APEC: A product or process characteristic that requires measurement using, either attribute (go/no go) or variable gauging methods. The frequency of the measurement is to be documented on the control plan.

APEC (V): Same as APEC & defines check must be Variable.

KPEC: A product or process characteristic that either affects a customer defined special characteristic or has been identified by the APQP team as high risk from the DFMEA. A KPEC shall have either 100% inline detection (with reject master validation), or poke yoke. Where this is not feasible, variable gauging shall be used and statistical tools (SPC) shall be used for control with an ongoing Ppk greater than 1.67. SPC is to be maintained throughout the life of the program.

- The supplier shall submit all KPEC data to KSR International with every PPAP (Initial, ECR) as a 125-piece capability study in a verified statistical package like but not limited to MiniTab™
  - This data is to include ongoing in process inspections from the production run from which these parts are being shipped.
  - The data shall represent the inspection frequencies that have been defined on the suppliers control plan
- The supplier is to retain all data on KPEC items to be available upon request by the receiving plant. (Reference SPC procedure for capability requirements)

## 1.4. High Impact Suppliers

High impact suppliers are companies supplying products to KSR International that affect safety, fit, or functional aspects of KSR's final product. Any supplier with a Customer designated Critical Characteristic or KSR KPEC listed on their print is automatically deemed a high impact supplier. A supplier may also be deemed high impact due to recent quality, delivery issues, complexity of the product, new plant, or equipment.

The Corporate Supplier Development/Quality team will create a high impact supplier tracker for all new products until customer PPAP signoff. These suppliers will be audited to ensure that the tooling, equipment and procedures being used are adequate to provide the part required to the drawing quoted. Special emphasis will be placed on defect prevention as part of this audit.

## 1.5. Advance Product Quality Planning (APQP)

Advance Product Quality Planning (APQP) will be the tool used to monitor launch activities for all High Impact suppliers. The expectations for APQP for all production suppliers (components, materials tooling, etc.) are summarized in the current edition of the Automotive Industry Action Group ([www.aiag.org](http://www.aiag.org)) methods manual. KSR International reserves the right to require customer specific methods for APQP outside of the AIAG standard.

Suppliers may be asked to use KSR APQP status sheet F\_C3-53 for status tracking. Upon request, KSR associates may attend supplier APQP meetings.

## 1.6. Production Part Approval Process (PPAP) Sample Submission

### PPAP Expectations:

- Submitted using the current AIAG requirements, Production Part Approval Process (PPAP), and any additional Customer Requirements. KSR Purchasing/Supplier Development will inform sub-supplier if extra documentation or testing requirements needed.
- All documents submitted for either Level 3 or Level 4 PPAP need to be dated within 365 days of submittal and valid at time of submission.
- Late PPAP's may result in a DMN and a \$500 administrative charge.
- Any Non-Automotive components for Non-automotive applications supplied to KSR International are not required to submit PPAP's. The KSR plant receiving any non-automotive parts will instruct the supplier as to the part requirements if any.
- Bulk Materials such as Resin and Steel supplied to KSR plants for automotive parts production are required to submit PSW, Material certifications and IMDS acceptance forms as an initial approval format. All shipments after approval need to have material certs submitted to the receiving plant at time of delivery either with the material or electronically. Each KSR receiving plant will regulate this.

**Supplier PPAP Submissions:**

	<b>Ridgetown/Rodney/Mexico</b>	<b>China/ Czech</b>
<b>Level-3</b>	<a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>	Contact on PO and <a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>
<b>Level-4</b>	<a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>	Contact on PO and <a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>
<b>Level-1</b>	<a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>	Contact on PO and <a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>
<b>Bulk Materials</b>	<a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>	Contact on PO and <a href="mailto:supplierdev@ksrint.com">supplierdev@ksrint.com</a>

The KSR Commodities Buyers will identify the Level of PPAP required via PO or email to the supplier.

If an ECR drives a change to a program but no revision change is required for the component a Level 4 PPAP will be required for KSR’s PPAP to customer and the supplier will be notified either by the KSR purchasing department or from the Supplier Development/Quality Department.

**Supplier PPAP Document Requirement Chart:**

PPAP’s	Level 3 PPAP’s	Level 4 PPAP’s	VDA Level 3 PPAP’s	VDA Level 4 PPAP’s	Level 1	Bulk Steel & Resin
VDA Cover sheet (if required)			X	X		
VDA test results sheet (if required)			X	X		
VDA Part History sheet (if required)			X	X		
PSW (AIAG CFG-1001)	X	X			X	X
Sub-Supplier PSW (if applicable)	X	X				
Supplier QMS certificate	X	X	X	X		
PFLOW	X		X			
PFMEA	X		X			
Control Plan	X		X			
KSR Ballooned Print	X	X	X	X		
GR+R’s (ANOVA format)	X		X			
Dimensional Results (AIAG CFG-1003)	X	X				
SPC Capability Study (if required)	X	X	X	X		
Material Certifications	X	X	X	X		X
Material test Results (AIAG CFG-1004)	X	X				
Performance Test Results (AIAG CFG-1005)	X	X				
Qualified Laboratory Documentation	X	X	X	X		X
Appearance Approval Report (if applicable)	X		X			

Accepted IMDS Certification	X		X			X
Capacity Verifications (F_C3-63)	X	X	X	X		
Label	X		X			
Approved Packaging (F_C3-61)	X		X			

- If a supplier is shipping a part with multiple part #'s on the drawing, the PPAP package only needs to reference the lead part # in the KSR title block. Additional PSW's will be submitted for each added part number on the print with corresponding plant information.
- If a supplier is supplying one part number to multiple plants, there must be a PSW for each plant that is receiving the part submitted in the PPAP package.
- The approved packaging form (F\_C3-61) signed by KSR Materials Manager must be submitted with PPAP.
- The current F\_C3-63 capacity verification form and the F\_C3-61 packaging approval can be found at [www.ksrint.com](http://www.ksrint.com) in the supplier info tab
- It is the responsibility of the suppliers and their sub-suppliers who ship plated, coated, heat-treated, welded, soldered, molded, or cast product into KSR facilities to ensure that their processes are assessed and certified to the appropriate CQI standard annually.
- In special cases, where a supplier has been directed by a KSR customer, and that supplier has previously PPAP'ed the product directly to the customer, a copy of the customer approved PSW or screen shot of customer approval system may be acceptable.
- Samples shall be provided using production tooling for Initial PPAP's
- Where multiple tools, mold cavities or patterns are used, samples from each shall be clearly identified and submitted with the PPAP package
- As per the AIAG manual (Part Submission Warrant) which states if production parts will be produced from more than one cavity, mold, tool, die, pattern or production process, e.g., line or cell, the organization shall complete a dimensional evaluation on one part from each.
- For single cavity, mold, tool, die, pattern or production process, e.g., line or cell, the organization shall complete a dimensional evaluation on 6 parts.
- A ballooned print shall be submitted identifying the areas of each measurement and notes corresponding to the dimensional report
- For all Special Characteristics, including but not limited to KPEC, SC, and CC, process capability shall be submitted. This capability shall be accomplished using no fewer than 125 parts. Acceptable process capability will be a Ppk value greater than or equal to 1.67
- Part numbers with Customer Critical Characteristics or KSR "KPEC's" must have a GR&R for the specific dimension called out on the print.
- Gauge R&Rs shall be completed using the ANOVA method as described in the current AIAG MSA manual. GR&R's need to be done on a KSR part number but they can then be applied to all PPAP's submitted.

- Variable Gauge R&Rs shall use 10 parts, 3 operators and 3 trials. Variable studies are to be done in either MiniTab™ or AIAG formats. The 10 parts selected for the study must represent the normal variation in the process.
- GR&R value must be equal to or less than 10%, and the number of distinct categories must be equal to or greater than 5.
- Attribute Gauge R&Rs shall use 50 parts, 3 operators, and 3 trials. Attribute studies are to be done either in MiniTab™ or using AIAG attribute form.
- Process capability data, gauge R&R, and dimensional data is to be supplied electronically. The file format shall be in either MiniTab™ or Microsoft Excel™
- Accepted IMDS reports must be supplied with each PPAP package to KSR International.

It is the supplier's responsibility to ensure that parts meet all drawing and material requirements prior to submission. Samples found to be dimensionally incorrect or submissions with improper or incomplete documentation shall be rejected unless a supplier change request (F\_C3-54) has been submitted and approved.

### **Laboratory Testing Requirements:**

<b>Testing Facility</b>	<b>Minimum Requirement</b>
Original Manufacturer or Material supplier	Lab Scope with Form Number or Work Instruction Number, audited under ISO 9001/IATF 16949
3 <sup>rd</sup> Party Laboratory	Accredited to ISO 17025 or equivalent standard

### **1.7. Supplier Change Requests**

Suppliers shall obtain written approval from KSR International for any changes in process, design, or facilities (including but not limited to rework not identified in the PPAP package, and equipment move within the facility) prior to implementation of such change. All Change requests are to be submitted on a supplier change request form (F\_C3-54) to the appropriate purchasing personnel.

Implementation of new processes, transfers of production to a different location, or changes to the manufacturing process requires a new PPAP submission.

Any sub supplier that fails to follow the KSR SCR process will automatically be put on new business hold until full corrective actions are deemed acceptable by KSR and affected KSR plant(s). KSR also holds the right to charge back any monetary costs accumulated for any changes.

### **1.8. International Material Data System (IMDS)**

All subcontractors supplying parts to KSR International Co / Dresden Industrial must submit approved/accepted IMDS documents with their PPAP package. KSR recommends IMDS submissions to the IMDS database 30 days before the contracted PPAP due date. Suppliers must be registered in IMDS and all documentation will be submitted to KSR International Co.



through the IMDS web-based system. Suppliers shall submit IMDS to the appropriate KSR site based on ship to location, the codes are:

KSR Canada and Mexico	ID Number 8799
KSR China	ID Number 64508
KSR Czech Republic	ID Number 17877

To register in IMDS go to [www.mdssystem.com](http://www.mdssystem.com) and follow the instructions for online registration.

## 1.9. Types of Audits

Sourcing Audit (S) - To evaluate any new potential supplier
Process Audit (P) - In depth review of all manufacturing processes
VDA 6.3 (V) - In depth review over the entire product realization cycle in both manufacturing and services
Control Plan Audit (CP) - To evaluate the adequacy of the controls in place for a specific KSR product
Warehouse Audit (WH) – To evaluate procedures and policies for inventory control, dock audit inspections, material handling, raw, in-process and finished goods storage and shipping.
D/TLD Supplier Self-Audit (D/TLD) – Compliance audit for Legal, Safety requirements for critical parts defined by KSR as per KSR’s Customer Specific Requirements (If applicable)

### 1.9.1. Supplier Sourcing Audit

Prior to the approval of a potential supplier, a sourcing audit (F C3-1) must be completed. This includes the General Information tab, Supplier Self-Assessment tab, and any Technical Assessments that are applicable. The F C3-1 form will be reviewed by the Director of Global Quality and an onsite visit may be scheduled.

Suppliers are required to update contact information and submit to KSR International on the General Information form (F\_C3-1). Contact information should be updated annually, at a minimum, or when there are personnel changes affecting key contacts of KSR International.

### 1.9.2. Process Audit

Process audits (F\_C3-55) must be completed using the [process audit work sheet](#). A process audit is an in depth audit and review of all processing facets associated with the manufacturing of products purchased by KSR International. If a Process audit is required, the Supplier Development Representative will contact the supplier and set up a date and time.

A run at rate may also be required for completion of the Process audit. Factors such as product complexity, shelf life, storage cost, and single shift vs. multiple shift operations are taken into consideration when determining the length of the R@R. The default length of the R@R will be a minimum of 300 pieces or 3 hours of production. The production run must be on the production line of record, using production tools, processes, and trained operators. The format of the R@R will be dependent on KSR's customer requirements, and will be made available upon request at the time of launch.

KSR intends to use this Process audit process as a tool to assure our customers that our suppliers have met all of our requirements and that we are developing suppliers capable of meeting or exceeding customer expectations. This is not a certification audit to ISO 9001, IATF 16949 or VDA 6.3.

Corrective action responses to Audits performed are due 1 week after completion of audit. If corrective action responses are outside of the 1-week date, then 10 points can be taken from the supplier's monthly quality rating.

### **1.9.3. VDA 6.3 Audit**

VDA 6.3 audits must be completed using the latest VDA assessment reporting method. VDA 6.3 audits are a process based audit standard for evaluating and improving controls within an organization's manufacturing processes. VDA 6.3 audit format can be used by KSR to audit any potential or existing supplier but must be used for all suppliers that manufacture parts for VW (Volkswagen) automaker.

The VDA 6.3 audit covers the entire product realization cycle in both manufacturing and services. VDA 6.3 defines the audit process, the criteria for evaluation of the process audit results, and the requirements of the processes using the PDCA (Plan Do Check Act) approach. There are three grades that an organization can reach under VDA 6.3 – A, B & C. KSR will audit process elements P2-P7 before SOP (Start of Production) and process elements P5-P7 after SOP.

KSR reserves the right to ask suppliers to carry out a self-audit according to Formel Q capability, or alternatively according to VDA 6.3. The potential analysis is performed by a trained internal auditor according to VDA 6.3. The evaluation of potential analysis is a kind of semaphore which means green-yellow-red. For all findings from the potential analysis the supplier must introduce an improvement plan to KSR indicating deadlines and responsible persons. The improvement plan must be implemented by the due dates established and agreed to by KSR.

### **1.9.4. Control Plan Audit**

Control Plan audits (F\_C3-55) must be completed using the Control Plan (CP) audit work sheet. A Control Plan audit is performed to audit a specific KSR product or products. Control plan audits put special emphasis on defect prevention and process capabilities for parts with critical characteristics and KSR KPEC's listed on the part print.

Control Plan audits may be scheduled due to, but not limited to, the following factors:

- 1) Suppliers that have Multiple part numbers being released annually with Critical Characteristics. KSR (refer to Section 1.4)
- 2) Suppliers that have had repeat issues with quality of parts being delivered to any of the KSR International plants
- 3) Failures captured at any of KSR International customers that were directly caused by non-conforming supplied parts.

### **1.9.5. Warehouse Audit**

Warehouse audits (F\_C3-55) must be completed using the Warehouse (WH) audit work sheet. Warehouse audits may be performed by KSR on distributors. Distributors are KSR suppliers who purchase product from manufacturers and store this material or product in their warehouse location(s). Warehouse audits evaluate all procedures and processes related to inventory control, dock audit inspections, material handling, and raw, in-process, and finished goods storage and shipping.

### **1.9.6. D/TLD Supplier Self-Audit**

D/TLD audits are the responsibility of the supplier. This requirement will be noted and defined to the part print. This audit must be carried out at least once per year. KSR Purchasing will notify the supplier via purchase order if this audit is applicable. KSR reserves the right to verify compliance with the requirement of documentation for D/TLD parts. The audit results must be kept and archived for a minimum of 15 years and must be available at all times. The requirement for qualifications shall be successfully completed for D/TLD audit training according to Formel Q.

## **1.10. Audit Scheduling**

All types of audits conducted by KSR may be scheduled every two years for any supplier.

Factors that may drive the scheduling of an audit include, but are not limited to:

- 1) Product with critical or significant characteristics that affects safety or fit/function aspects of KSR's final product. KSR's Supplier Development assesses all suppliers within the supply base through two categories of risk (Critical or Not Critical). This assessment is documented to KSR's Subcontractor Approved Mater List F\_C3-26. The Approved Master List is used when scheduling audits and critical suppliers will be audited on a more frequent basis than suppliers deemed not critical.
- 2) Suppliers with Quality or Delivery performance issues published through DMN's or DPR's.
- 3) Suppliers with repeated occurrences of Unacceptable or At Risk supplier monthly performance ratings.

## 1.11. Supplier Non-Conformance Material Report and Delivery Performance

Suppliers are notified of non-conforming material and delivery performance through the KSR SupplyWEB site (Section 5.0). The plant quality group will be responsible for issuing electronically a documented supplier Defective Material Notice (DMN). A Delivery Performance Review (DPR) is sent electronically through SupplyWeb. The issuer of either the DMN or DPR is the champion of the process until closed.

A DMN or DPR is issued whenever purchased material which does not conform to KSR International requirements has been identified. This is inclusive of, but not limited to: quality, delivery, logistics, labeling, design, customs compliance, paperwork, etc.

Non-conforming material may be identified during incoming inspection, assembly, processing, audit, OEM notification, or reliability testing. An authorization number will be requested from the supplier for debit authorization of on-site scrap, rework, sort, material to be returned, or any associated cost due to the nonconformance.

The supplier non-conformance material reports (DMN or DPR) serve the following functions:

- Accounting debit memo
- Packing slip for returned material
- Quality record for generating PPM
- Supplier response request (8D F\_C3-62)
- Communication of issues and concerns to the supplier
- Record to support adjustments of supplier's cumulative shipment history

All suppliers non-conformances will be formally documented using the KSR 8D F\_C3-62.

### 1.11.1. Supplier DMN and DPR Requirements

Within **one (1)** working day of the DMN or DPR being issued the supplier will submit a detailed containment action plan in Supply Web to include the following, at a minimum:

- Written containment actions (At supplier's facility and at KSR International facilities)
- Suspect inventory, lot numbers, etc.
- Number of parts sorted and number of defects found
- Date and time of first clean shipment and how certified parts will be identified
- Upload of Initial KSR 8D report F\_C3-62

Within **fourteen (14)** days of a DMN or DPR being issued, the supplier shall submit an updated corrective action plan and 3L5Y, in writing, on a KSR 8D report (F\_C3-62), any document modified as result of corrective actions and upload it into the Supply Web system. The above timing is also subject to changes due to KSR's Customer(s) requirements.

An F\_C3-64 Supplier Certification label must be filled out and attached beside the master skid label. All boxes must have a yellow 1"-2" sticker affixed beside box label with the DMN# written on it. Blank Label can be found at [www.ksrint.com](http://www.ksrint.com)

<b>Part Name:</b>																									
<b>KSR Part #:</b>																									
<table border="1"> <tr> <td>Manufacture Date</td> <td>← Date Manufactured</td> </tr> <tr> <td>MM/DD/YEAR</td> <td></td> </tr> <tr> <td>Sort Date</td> <td>← Time the last part was put into the bin</td> </tr> <tr> <td>MM/DD/YEAR</td> <td></td> </tr> <tr> <td>Sorter's Name</td> <td>← Name(s) of the operator sorting parts</td> </tr> <tr> <td>John Doe</td> <td></td> </tr> <tr> <td>Certification Level #</td> <td>← Level of certification to be revised upon addition of any new inspection.</td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>Rev Date: MM/DD/YEAR</td> <td>← Change this date when the Revision number is changed</td> </tr> </table>	Manufacture Date	← Date Manufactured	MM/DD/YEAR		Sort Date	← Time the last part was put into the bin	MM/DD/YEAR		Sorter's Name	← Name(s) of the operator sorting parts	John Doe		Certification Level #	← Level of certification to be revised upon addition of any new inspection.	1		Rev Date: MM/DD/YEAR	← Change this date when the Revision number is changed	<table border="1"> <tr> <td>Certified for:</td> <td>← Description of what parts are certified for Reference DMN #</td> </tr> <tr> <td colspan="2">Pictures of Certification marks on Parts:</td> </tr> <tr> <td colspan="2">← Add pictures of parts with certification marks.</td> </tr> </table>	Certified for:	← Description of what parts are certified for Reference DMN #	Pictures of Certification marks on Parts:		← Add pictures of parts with certification marks.	
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Pictures of Certification marks on Parts:																									
← Add pictures of parts with certification marks.																									
This sheet to be copied on Letter sized White Paper Attach next to master skid label																									

### 1.11.2. Closing a DMN and DPR

The KSR International initiator shall review and approve closure of the DMN or DPR. KSR reserves the right to require that additional controls be implemented and/or additional documentation be provided to resolve supplier issues.

### 1.11.3. DMN and DPR Dispute

In the event of a disputed DMN or DPR, the supplier shall document the dispute (with reasons) in the DMN or DPR system. Should an escalation be required for disputes with no response, the supplier shall contact their buyer.

Note: DMN/DPR instructions are available on [www.ksrint.com](http://www.ksrint.com) in the supplier info tab.

## 1.12. Supplier Non-Conformance Material Report Charge Backs

KSR International will debit the supplier for all internal and external costs associated with the Supplier Non-Conformance Notice (DMN). In addition, the supplier will be charged a \$200 administration fee for each DMN issued. This fee covers KSR International's administration costs associated with documenting the non-conformance.

The supplier will have 10 working days to review and challenge the chargeback in writing to the buyer from the date of issue. If the supplier does not respond within 10 working days, the supplier has accepted the debit. A debit memo will be issued and/or the amount will be debited from the next payment.

**NOTE:** If any of the KSR facilities, under emergency circumstances, are required to sort, rework or inspect supplier's non-conforming product, a fee of \$60.00 per hour – per employee utilized will be charged back to the Supplier (F\_C3-56).

## 1.13. Controlled Shipping Containment

For suppliers with chronic or repetitive quality and delivery issues, KSR International reserves the right to impose additional containment measures at the supplier's expense to ensure the product received conforms to the requirements. Suppliers who are required to implement either Level One or Level Two containment shall be notified in writing by KSR Corporate Supplier Quality.

These additional controlled containment measures are intended to be interim steps to ensure conforming product is shipped to all KSR International plants. Permanent actions to prevent recurrence must be implemented in conjunction with these containment programs. Once permanent actions are implemented and verified to be effective, a 30-day clean point must be established from the date the corrective action was implemented with zero (0) non-conformances reported before the supplier is allowed to exit controlled containment. Weekly updates are required throughout the entire containment period detailing the quantity of parts inspected and the percentage of failures detected.

### 1.13.1. Early Containment

Early Containment applies to any parts produced for prototype: pilot or saleable vehicle builds at KSR International facilities prior to full production. Early or Pre-Production Containment activities are required of the supplier and must be documented on a prototype or pre-launch control plan.

Typically, the specified production quantity or duration is intended to match the OEM's acceleration / ramp up plan to full production volumes. If not specified, the duration for containment is 5% of the annual volume of pieces defect free after the Start of Production (SOP).

The supplier must attach a green dot (1.25 – 2-inch diameter) signed and dated by the

designated senior management representative to each bar code label verifying that Early Production containment requirements have been met.

The supplier must establish a containment process that includes the following elements:

- Identifies the person responsible for the containment process
- Pre-launch control plan
- Must include additional controls, inspection audits, and testing to identify non-conformance during the production process (See the AIAG advanced product quality planning and control plan reference manual)
- The supplier is responsible to document the containment activities, as proof of adherence to the established pre-launch containment plan. This data shall be used to verify the effectiveness of the containment activities

Additionally, if any KSR International facility receives non-conforming product from their suppliers during the pre-production phase, the supplier will be required to institute third party inspection to protect KSR International facilities from further non-conformances.

The exit criteria for Early Production containment is as follows:

- Self-Exit Criteria – The supplier ships the required quantities for the duration specified with no non-conformances or Defective Material Notices for the affected product
- If the supplier does not meet the self-exit criteria, all Supplier Non-conformance reports must be closed before the supplier can exit early Production containment.

The early production containment plan is required until the self-exit criteria have been met and the process controls and capabilities have proven effective and valid.

If PPAP's and parts are found at KSR plants that have not been identified as early containment product a DMN (defective material notice) may be issued and a DMN charge will be applied as in section 1.10.

### **1.13.2. Level One Controlled Shipping Containment**

The supplier is required to perform a 100% certification of all products prior to shipment using an additional, off line inspection process. This measure shall be in addition to any existing controls and containment measures previously implemented.

This level is imposed on suppliers who have failed to contain or correct quality issues documented by DMN. Formal Letters are issued to the supplier notifying them of the Level "One" shipping containment status and requirements (F\_C3-57). The supplier must absorb any and all costs associated with containment activities.

The supplier will be responsible to reply with their implemented containment plan via an initial 8D within 24 hours of Level One notification. The containment plan must be reviewed and agreed upon by the supplier's KSR Corporate Supplier Quality contact. The supplier is responsible for keeping the KSR plant location advised of ongoing containment results until released in writing from Level One.

### **1.13.3. Level Two Controlled Shipping Containment**

Level Two containment is imposed on suppliers for the following reasons:

- Repetitive quality issues
- Unsuccessful early production containment
- Unsuccessful Level One containment program
- As deemed necessary by executive management

Formal letters are issued to the supplier notifying them of the Level Two-containment status and requirements (F\_C3-58). The supplier must absorb any and all costs associated with containment activities.

The Supplier is required to use an independent 3<sup>rd</sup> party to certify and inspect the product certification off line or at an offsite location if deemed necessary. The independent 3<sup>rd</sup> party shall 100% certify all product prior to shipment to the KSR International facilities or other locations designated by KSR International.

The 3<sup>rd</sup> party will be responsible for performing the sort function per the established inspection criteria and recording the results. The third party will provide documentation to both the supplier and to the supplier's KSR Corporate Supplier Quality contact on the progress of containment activity daily.

Additionally, the supplier is required to develop and submit a Level Two communication plan within 24 hours of Level Two notification. The plan should address the format and frequency of communication to the affected KSR International location and must be reviewed and agreed upon by the supplier's KSR Corporate Supplier Quality contact. The supplier is responsible for keeping the KSR plant locations advised on all issues identified and of ongoing containment results until released in writing from Level Two containment.

### **1.13.4. Level I & II exit Criteria**

To exit from Level I & II Containment, you must provide the following:

- Submit Data to KSR Corporate Supplier Quality and KSR Plant Quality, which shows the issue, has been resolved and appropriately contained for a minimum of 30 days and/or 3 shipments as a result of Internal (level 1) or third party (level 2) sorting.
- A Complete 8D F\_C3-62



## 1.14. Statistical Methods

KSR International suppliers are required to use statistical methods to understand product and process variation to proactively prevent non-conformance. Automobile Industry Action Group (AIAG) Measurement System Analysis – MSA manual describes the methodology for ascertaining if the measurement techniques and equipment used are capable of collecting accurate data to drive improvements.

KSR International suppliers are expected to establish the appropriate Statistical Process Controls (SPC) for special characteristic(s) selected during the Advanced Product Quality Planning (APQP) process (refer to AIAG Statistical Process Control Manual).

Special characteristics will be clearly identified on drawings and require the completion of short-term capability studies.

The supplier control plan will be used to define the method and means of control of special characteristics during production. A special characteristic does not necessarily require the use of ongoing SPC, so long as 100% inline detection is being used with calibrated reject masters to verify detection in functioning properly. Unless otherwise specified by the customer, capability must exceed a Ppk of 1.67.

## 1.15. CQI – Requirements

The Standards CQI-9, 11, 12, 15, 17, 23, and 27 have been published through AIAG.

All suppliers providing heat treated, plated, coated, welded, soldered, molded or cast components to KSR regardless of tier, must submit annual self-assessments consistent to those described in the applicable and current CQI guidelines as published through AIAG. Annual validations of these assessments are to be submitted to the Supplier Development Purchasing Clerk within 90 days of completion.

If a tier 1 supplier to KSR is having heat treating, plating, coating, welding, soldering, molding, or casting services contracted out to tier 2 and beyond, it is the responsibility of the tier 1 to submit the self-assessment(s) accordingly. Failure to provide these surveys may result in DMN's (Defective Material Notice) being issued, negatively affecting your supplier quality rating.

The following processes require CQI Assessments:

- CQI-9 Heat Treat
- CQI-11 Plating
- CQI-12 Coatings
- CQI-15 Welding
- CQI-17 Soldering
- CQI-23 Molding
- CQI-27 Casting

Additional information on these standards can be obtained through the AIAG at [www.aiag.org](http://www.aiag.org).

## 2. Labeling and Shipping Requirements

### 2.1. Tool Labeling and Identification

All tools for which KSR International issues a purchase order must be tagged with a tag identifying the appropriate customer as the owner of the tool. For each tool purchased KSR International will provide the vendor with the tag to be permanently attached to the tool, this tag will be stamped by KSR with the appropriate tool identification number. Tags are used unless otherwise specified by customer requirements.

A notice will be sent to the supplier cross referencing the part to be made to the tool tag ID.

It is the responsibility of the Vendor to permanently affix the tag to the tool in a predominant place on the tool that is easily visible, but will not be damaged by the use of the tool.

Pictures of the tool are to be submitted to KSR International in order to complete the payment of the tooling purchase order. These pictures must show the tool with the tag predominantly shown in this picture. A second picture may be required to show the information that is stamped on the tool tag.

**NOTE:** Tools include, but are not limited to: dies, molds, holding fixtures, checking fixtures, equipment.

### 2.2. Master Skid Labels

Master skid labels are required for shipments to all KSR International facilities. A master skid label needs to be in the correct format and content (section 2.3 & 2.4) One Master label needs to be applied to the outside of each pallet/skid of material for each Part Number, Release Number and Lot Number.

Example:

1. If a shipment is made with 3 part numbers on one pallet then there needs to be 3 separate labels, 1 for each part number.
2. If a shipment is made with 1-part number but has two Lot Numbers on the same pallet, then there needs to be 2 separate labels, 1 for each Lot Number.

### 2.3. Label Format

All products must be labeled in accordance with the latest AIAG labeling requirements. The following label format is expected on all packaging shipped to KSR International. While the content (section 2.4) is required to properly receive the shipment.

**Format:**

0		3	4	6
0	Customer Part Number (P)	Part Revision	Ship To KSR International Site	
0.5		Ship From		
1	Quantity (Q)	Description		
1.25				
1.5				
2	Purchase Order Number (K)	Packing Slip/BOL # (S)		
3	Release Number (5K)	Lot Number (1T)		
4				

## 2.4. Label Content Requirements

- The customer part number field must be the same as on the PO from KSR.
- Label is 4” High x 6” Wide
- Labels are to be printed with black characters on a white background
- Fonts shall be upper case bold Arial narrow
- The vendor is to ensure that labels will be readable upon receipt at any of the KSR International manufacturing sites
- Field descriptions are to be 6-point font
- Displayed text in each field is to be 26-point font, except for Ship from and Description which are to be 10-point font
- All fields should be alphanumeric, and are not to include any special characters. ie. “#” or “-”
- Barcodes are to be of the 3 of 9 format (also known as Code 39)
- Barcodes shall be 0.5 inches in height
- A prefix is required with each barcode, which is identified in the sample label above in brackets
- The Lot Number (1T) is to be used for material traceability from KSR International to the supplier. The supplier shall be able to trace all raw materials back to the raw state from this lot number. The format of the lot number is up to the discretion of the supplier, however, the format cannot be longer than ten (10) characters in length.
- The Purchase Order (K) must be (7) characters in length and should not include the PO revision. ie. P123456
- The Packing Slip/BOL# (S) field is a maximum of 10 characters in length and only needs to be present on the Master skid label at minimum.

- The Quantity (Q) section on the Master skid label must show the **Total** quantity on the pallet per section 2.2, the Quantity (Q) section on the production (box) label must show only the quantity in the individual box.
- The Release Number (5K) is a maximum of 4 numbers and only needs to be present on the Master skid label at a minimum. This is the “Pull Signal” from SupplyWeb image below.

Date	Quantity	Type	Frequenc	Pull Signal	Requirement Additional Information
2010-08-26 12:00:00	9000	Firm	JIT	0015	
2010-09-13 12:00:00	9000	Firm	JIT	0016	
2010-09-27 12:00:00	9000	Firm	JIT	0017	
2010-10-11 12:00:00	9000	Firm	JIT	0018	
2010-11-01 12:00:00	9000	Firm	JIT	0019	
2010-11-29 12:00:00	9000	Firm	JIT	0020	

### Content: Example Label

Customer Part Number (P) <b>123456A</b> Barcode 3 of 9	Part Revision <b>A</b>	Ship To KSR International Site <b>RIDGETOWN</b>
Quantity (Q) <b>1000</b> Barcode 3 of 9	Ship From <b>ABC COMPANY 5 MAIN ST. ANYWHERE, ON HOH OHO</b>	Description <b>PART DESCRIPTION</b>
Purchase Order Number (K) <b>P123456</b> Barcode 3 of 9	Packing Slip/BOL# (S) <b>0123456789</b> Barcode 3 of 9	
Release Number (5K) <b>1234</b> Barcode 3 of 9	Lot Number (1T) <b>0123456789</b> Barcode 3 of 9	

Any deviations requested from the standard AIAG bar code labels specified above must be approved by KSR Corporate Purchasing department prior to shipment.

**NOTE:** Suppliers will ensure all old labels are removed from the containers prior to shipping to any KSR International manufacturing facility.

**NOTE:** The supplier shall be able to show traceability through the lot number on each container. For large production runs that are shipped across several deliveries to KSR, each separate shipment must have unique lot numbers. For any suppliers that have unique lot identifiers per box, the previous statement does not apply.

**NOTE:** Any shipments missing the above information may affect the receiving process which could result in delayed payment to the vendor and the creation of a DMN or DPR.

## **2.5. EDI Capability**

Suppliers shall have EDI capability as an option for receiving releases and submitting ASN with shipments.

## **2.6. Lot Traceability**

For lot traceability, KSR International requires the supplier to establish and maintain procedures for identifying the production lots from receipt of raw material through to shipment of final product.

The supplier's lot traceability system shall permit isolation of suspect product and report production and quality data based upon the lot number on each container.

KSR International expects the supplier to provide lot traceability data within 24 hours based on the label lot number. The supplier shall be able to identify other lot numbers that may be affected (i.e. Subcomponents used from one lot number used across several different finished Goods lot numbers).

## **2.7. Packaging**

Packaging is to be sufficient to ensure that delivered product is free of any defects including handling and transportation damage. This shall also be carried across to any work in process packaging throughout the entire manufacturing process.

Shipped packaging needs to be approved by KSR Materials Manager on form F\_C3-61 and submitted with PPAP. Blank Copy can be found at [www.ksrint.com](http://www.ksrint.com)

### 3. Supplier Rating

The KSR International system utilizes a rating system (SupplyWEB) to monitor and assess supplier performance. The KSR International supplier rating system uses quality and delivery to calculate an overall performance rating. The rating is then factored into future sourcing decisions.

#### 3.1. Supplier Rating Criteria

Suppliers will be rated on a 100-point scale, with the following criteria:

##### 3.1.1. Quality (65 points)

- **Parts Per Million (PPM) (40 points)**

NOTE:  $PPM = \left( \frac{\text{Defective parts received}}{\text{Total parts shipped to KSR}} \right) \times 1\,000\,000$

- **Defective Material Notices (DMN) Response (25 points)**

The responsiveness score is based on the supplier's timely response to the Defective Material Notice and corrective action requirements. This includes:

- Containment on time responsiveness – 24 hours (one working day)
- Corrective Action on time responsiveness – 14 days (working days)

The responsiveness score will be carried over for the following months until Containment/Corrective Actions responsiveness on the DMN(s) is/are filled out.

##### 3.1.2. Materials (35 points)

- **Schedule Adherence (10 points)**

Schedule Adherence is defined as a shipment that is delivered to the correct location and is the correct part number and quantity that was ordered.

- **Delivery and shipment performance (10 points)**

On Time Delivery is defined as a shipment delivered to the specified location on the day indicated on the production release schedules.

- **Receiving accuracy (15 points)**

Suppliers are required to submit an accurate ASN on time (within 4 hours of shipping).

### 3.1.3. Significant Issues (10 points)

Up to 10 points will be deducted from the supplier’s performance rating for parts rejected at the OEM customer’s facility or if it is a repeat issue. Up to 10 points may also be removed for delinquent System audit response.

## 3.2. Supplier Rating Scale

The following formula will be used for calculating the supplier rating:

$$\text{Supplier Rating} = \text{Quality} + \text{Materials} + \text{Significant Issues}$$

The supplier’s status will be categorized by their supplier rating as follows:

80-100 points (Acceptable)	Supplier in good standing
70-79 points (At risk)	SMQR process may be initiated
0-69 points (Unacceptable)	SMQR process may be initiated

A supplier will be notified if their supplier rating has fallen below the acceptable KSR standards. The supplier shall initiate internal corrective actions to improve the supplier rating, SMQR process may be initiated for suppliers rated “At Risk”.

## 3.3. Supplier Management Quality Review (SMQR)

Suppliers exhibiting poor performance in delivery, quality, or who have repeat issues will be required to attend a Supplier Management Quality Review meeting (SMQR). The goal of the SMQR is to review the supplier’s corrective actions for the effectiveness towards performance improvements. There are two levels of SMQR which are further discussed below. This is an extension of the supplier rating system. The supplier is required to present an action plan to address the poor performance. The action plan shall, at a minimum, address the cause of the SMQR being issued.

### 3.3.1. SMQR Level 1

Formal Letters are issued to the supplier notifying them of the SMQR Level 1

Level 1 will be managed by Corporate Supplier Development with support from plant quality and Buyer. A supplier will enter the SMQR 1 process by:

- Having any two consecutive months with a supplier rating at “Unacceptable”
- Having any three consecutive months with a supplier rating at “At Risk”
- Having any two consecutive months with a supplier rating with a combination of “Unacceptable”/ “At Risk”

The supplier is required to contact the Supplier Development Manager within 48 hrs and supply to KSR International an action plan within 10 business days for improving the suppliers rating and may be requested to attend an SMQR meeting.

A supplier will exit SMQR 1 by:

- Action plan approved by KSR International.
- Evidence of the Implementation of the action items. KSR International reserves the right to audit the supplier for closure of action items
- Following two months' supplier rating is "Acceptable"

**NOTE:** Suppliers have the right to call an SMQR level 1 meeting. This is encouraged as a method for the supplier to raise problems, which are not being resolved in a timely manner.

### 3.3.2. SMQR Level 2

Formal Letters are issued to the supplier notifying them of the SMQR Level 2

Meetings managed by Corporate Supplier Development will be held as required. The meetings will be supported by KSR Plant Quality Managers, VP of Purchasing and any other support as required. SMQR 2 meetings are to be held within 2 weeks of SMQR 2 letter being issued (Schedule may have to be adjusted based on timing and availability of KSR representation).

The supplier is required to contact the Supplier Development Manager within 48 hrs and supply to KSR International an action plan within 10 business days for improving the suppliers rating.

A supplier shall enter the SMQR 2 process by:

- Continuing to be rated as "Unacceptable" 60 days after the SMQR 1 notice
- Have been issued an SMQR letter within the previous 12 months

A supplier will exit SMQR 2 by:

- Top management attending the SMQR 2 meeting at KSR International, including Plant Manager, Quality Manager and any other support that is required
- Action plan approved by KSR International
- Implementation of the action items. KSR International reserves the right to audit the supplier for closure of action items
- Following three months' supplier rating is "Acceptable"



## 4. Warranty

The supplier is responsible for all warranty claims and associated costs (Internal, External, Consequential, etc.). In addition, the supplier shall provide any and all support required to address warranty issues. Support shall include, but is not limited to: return analysis, testing, and technical support at customer locations, etc.

## 5. SupplyWEB

SupplyWEB is used to publish demand (requirements or purchase orders) and Advance Ship Notices (ASNs) over the Internet. The exchange of information takes place between two groups: the customer (KSR International) and suppliers.

To use SupplyWEB, your computer must meet the following requirements.

- Windows 98 SE or greater
- Microsoft Internet Explorer 6.0 at a minimum
- Java and JavaScript
- Adobe Reader
- Flash Player – if using the SupplyWEB training Tutorial

In addition, note the following:

- SupplyWEB displays in multiple browser windows. Therefore, users must turn off or adjust the setup of pop-up block software to allow SupplyWEB windows to display
- Users must update their Windows systems to ensure that Internet Explorer interacts correctly with SupplyWEB

### 5.1. Registration to SupplyWEB

There is no cost to the supplier to register and implement the usage of SupplyWEB to comply with KSR International standards. Please review the SupplyWEB manual for information required and the steps necessary to register with SupplyWEB.

### 5.2. Event Management Console (EMC)

The EMC acts as SupplyWEB's homepage. Through the EMC you can view information and the status of your company account. On the EMC, both customer and suppliers can quickly view shipments, releases, receipts and discrepancies.

The Event Management Console should be configured as shown in the SupplyWEB manual to comply with KSR International use.

### 5.3. Demand Releases

When KSR International publishes a demand, a release is created to the supply base. The release contains header information and schedules for various parts. Each schedule contains requirements for a specific part. Through SupplyWEB, customers and suppliers share the same view of the requirements. Suppliers ship against the requirements, fulfilling the demand.

Instructions to View a Release are given in the SupplyWEB manual.

### 5.4. Shippers

Shippers are working documents from which Advance Ship Notices (ASNs) are generated and sent. The first time a shipper is created, the header information becomes default data. The next time a shipper is created, the default header information is automatically populated. The defaults can be overwritten.

### 5.5. Advance Ship Notices (ASNs)

Advance Ship Notices are electronic documents suppliers send to alert KSR International of a shipment on route and the contents of that shipment.

***KSR International requires suppliers to send an ASN within 4 hours of shipment.***

Instructions to Send an Advance Ship Notice (ASN) are shown in the SupplyWEB manual.

All suppliers MUST inform KSR plants about Premium Freight that the supplier pays for. Each KSR plant will track their individual supplier premium freight and report this to KSR CSDM annually for review.

### 5.6. Receipts

KSR International will send a receipt to the supplier to acknowledge received shipments. Receipt information can be viewed by shipment or by part number.

Instructions to View a Receipt are given in the SupplyWEB manual.

## 6. Diversity

KSR International encourages all sub suppliers to take Diversity training. Diversity training is an ongoing process to educate employees on the proper way to treat people of different backgrounds. The main goal of a successful diversity program is to create a positive work environment.

## 7. Ethics

KSR International encourages all sub suppliers to take Compliance & Ethics training and should also have in place policies for items such as but not limited to

- 1) Workplace harassment
- 2) Codes of conduct
- 3) Anti-corruption

## 8. Conflict Minerals Reporting

Conflict minerals' reporting is governed by the Securities and Exchange Commission (SEC) and is a KSR Customer requirement.

Conflict minerals reports are to be submitted annually to the third party company Assent Compliance Group on the current revision of the Conflict Minerals Reporting Template (CMRT).

CMRTs are required by suppliers with any Tin, Tantalum, Tungsten, or Gold contained in IMDS submissions. Submissions are required for applicable parts that are shipped to KSR International's customers through the reporting year. This means that a report may be required by a supplier, regardless if the part in question has been shipped to KSR International in that same reporting year.

Please read KSR's Conflict minerals policy at [www.ksrint.com](http://www.ksrint.com)

## 9. Acronyms

AIAG	Automotive Industry Action Group
APEC	Product Engineering Characteristic
APQP	Advance Product Quality Planning
ASN	Advance Ship Notice
CMRT	Conflict Minerals Reporting Template
CSDM	Corporate Supplier Development Manager
DMN	Defective Material Notice
DPR	Defective Performance Review
EMC	Event Management Console
IMDS	International Material Data System
KPEC	Key Product Engineering Characteristic
MSA	Measurement System Analysis
PPAP	Production Part Approval Process
PPM	Parts Per Million
PSW	Part Submission Warrant
RFQ	Request for Quote
SMQR	Supplier Management Quality Review
SPC	Statistical Process Controls