



# Supplier Quality Manual

Thai Summit America Corporation 1480 W. McPherson Park Dr. Howell, Michigan 48843		Prepared by: April Cebula  Supplier Quality Manual		Date of First Official Release:  10/04/2004	Rev. # 0
Rev #	DESCRIPTION OF CHANGES	Pages affected	Date	Changes made by:	
1	Continual Improvement additions in <i>Italic</i> and deletions <del>erossed out</del> , added new form "Part Quality Change ROF-Q.46". Revised PPAP Requirement Worksheet ROF-Q.40	5, 11, 13, 14, ROF-Q.40, ROF-Q.46.	7/19/05	A.C.	
2	Continual Improvement additions in <i>Italic</i> and deletions <del>erossed out</del> , added description of changes cover sheet. Revised PPAP Requirement Worksheet ROF-Q.40	2, 6, 15 ROF-Q.40	9/14/05	A.C.	
3	Continual Improvement	All	5/23/08	A.C.	
4	Continual Improvement	All	5/21/09	A.C.	
5	Continual Improvement	All	12/19/13	A.C.	

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Related Forms

## *Supplier Quality Manual*

**Scope:** The purpose of this Supplier Quality Manual is to define the requirements and detailed documentation required to verify conformance required by Thai Summit America (TSA) of the supplier quality standards and a mechanism for rating Supplier conformance to the standard.

For TSA to ship quality products to our customers, we must rely on our suppliers to make continual improvements to their processes and products.





We strongly believe that building a strong relationship with our supply base, through cooperation and teamwork will enable a partnership with TSA to achieve our goals and to ensure all of our continued success.

This manual applies to all Thai Summit America Production Suppliers. The Supplier Agreement includes additional requirements beyond the scope of this Manual.

For any concerns or discussions, please contact our Supplier Quality Assurance (SQA).  
517-548-4900

- 3. Approved Suppliers:** Approved Supplier status is awarded for all Production Part Supplier that meet's the following criteria:
  - 3.1 All Production Part Suppliers must be ISO/TS 16949 third party' registered. Production Part Suppliers must submit a current copy of their certificate to Thai Summit America (TSA) Purchasing or have received a written waiver from TSA Purchasing and SQA.
  - 3.2 A Supplier Self and Supply Chain Security Assessments must be completed and submitted to Thai Summit America Purchasing for all new and existing Production Part Suppliers, an assessment is required for all Supplier even if they satisfied one of the following:
    - ISO/TS16949:2009 certified (certificate required)
    - TSA Customer (OEM) approved Supplier
  - 3.3 Production Part Suppliers must meet the minimum requirements of the Supplier Performance Rating to maintain "Approved Supplier" status (Reference section 4 of this manual).
  - 3.4 Thai Summit America Purchasing will notify suppliers quarterly if they fall below the required monthly Supplier Performance Rating.




## 4. Supplier Performance Rating:

Rating Metrics	Possible Points	Rating Metrics	Possible Points
 Quality PPM's	40	 Late 8'D's	20
 On-time Delivery	30	 Invoice Accuracy	10

### Ratings

PPM's		Late 8'D's	
0	40	0 Days	30
1-50	30	1-10 days	15
51-100	20	11-20days	10
101-150	10	21-30 Days	5
151 or above	0	31 or above	0

On-time Delivery		Invoice Accuracy	
95% - 100%	30	100%	10
90% - 94%	20	50%	5
80% - 89%	10	Below 50%	0
Below 79%	0		

	<b>1-79 Points - Immediate Action Plan Required within 5 Business Days.</b>
	<b>80-90 Points - Approved Supplier, 3 months Yellow-Action Plan Required</b>
	<b>91-100 Points - Approved Certified Supplier</b>

- 4.1 Production Part Supplier ratings consist of four areas, quality PPM's, on-time submission of 8-D's, on-time delivery and invoice accuracy.
- 4.2 Thai Summit America (TSA) Purchasing rates all Production Parts Suppliers monthly on 100% on time delivery, based on the number of shipments per part divided by the number of total shipments late or early. Late or early shipments are determined by earlier than seven days from date required or more then zero day's late then required date.
- 4.3 When Production Part Suppliers fall below an overall rating of 80% in a calendar month, Thai Summit America Purchasing will notify the Production Part Supplier to request an action plan. The Production Part Supplier must submit an action plan to TSA Purchasing and SQA for improvement. The action plan is required within one week from notification and approved by TSA. Thai Summit America will monitor the Production Part Supplier for an additional three months to verify effectiveness of the action plan. If no improvement is evident, TSA Purchasing will arrange a meeting to discuss the next step in the process and move the Supplier to the "Probation List Form DOF-P.18 until issues are resolved. After the probationary period, if the rating has improved to an acceptable level the Production Part Supplier will be back on the Approved Supplier List. If the rating is not acceptable, Thai Summit America will arrange a meeting with the Suppliers upper management to determine plan of action. Two probations within any 18-month period will be terms for automatic resourcing.

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### **5. Supplier Assessment:**

A Supplier Self-Assessment is required on all new Production Part Suppliers or existing Production Part Suppliers if ratings are unsatisfactory. The Production Part Supplier will be required to submit an action plan with corrective actions to Thai Summit America Purchasing prior to consideration for any sourcing activity. The Supply Chain Security Assessment is required to be on file for all TSA Suppliers.

The purpose of an on-site assessment is to confirm the supplier's quality management system, with the goal of conformity to ISO/TS16949:2009.

Priority for quality system development will depend upon supplier quality performance.

The Thai Summit America assessment team consists of, Purchasing, SQA and Engineering and may include other departments as necessary to perform supplier assessments.

6. **PPAP Requirements:** Thai Summit America uses the AIAG standards unless otherwise specified by our customers. Thai Summit America SQA will supply a PPAP worksheet, which must be included in the PPAP Evidence Manual, with the manual tabbed and indexed per the worksheet. (See the PPAP Requirements Worksheet ROF-Q.40).
  - 6.1 Production Part Suppliers must submit Level 3 PPAP for first time submissions on all new Thai Summit America products, including Thai Summit America Part Quality / Engineering Change Level History Report ROF-Q.46, unless otherwise specified.
  - 6.2 **Production Part Supplier must have PPAP approval before shipment of products.**
  - 6.3 Initial PPAP capability run must be a minimum of 300 pieces from a continuous run at home line unless otherwise specified.
  - 6.4 All product part suppliers' products must have a Cp of 1.67, and Cpk of 1.67, based on given print tolerances, unless otherwise specified?????
  - 6.5 Product Part Suppliers producing products for Thai Summit America must perform gage R & R studies; however, our customers may require a more stringent R & R value from our suppliers. Thai Summit America requires a gage R & R of 30% maximum for all gages using percentage of tolerance.

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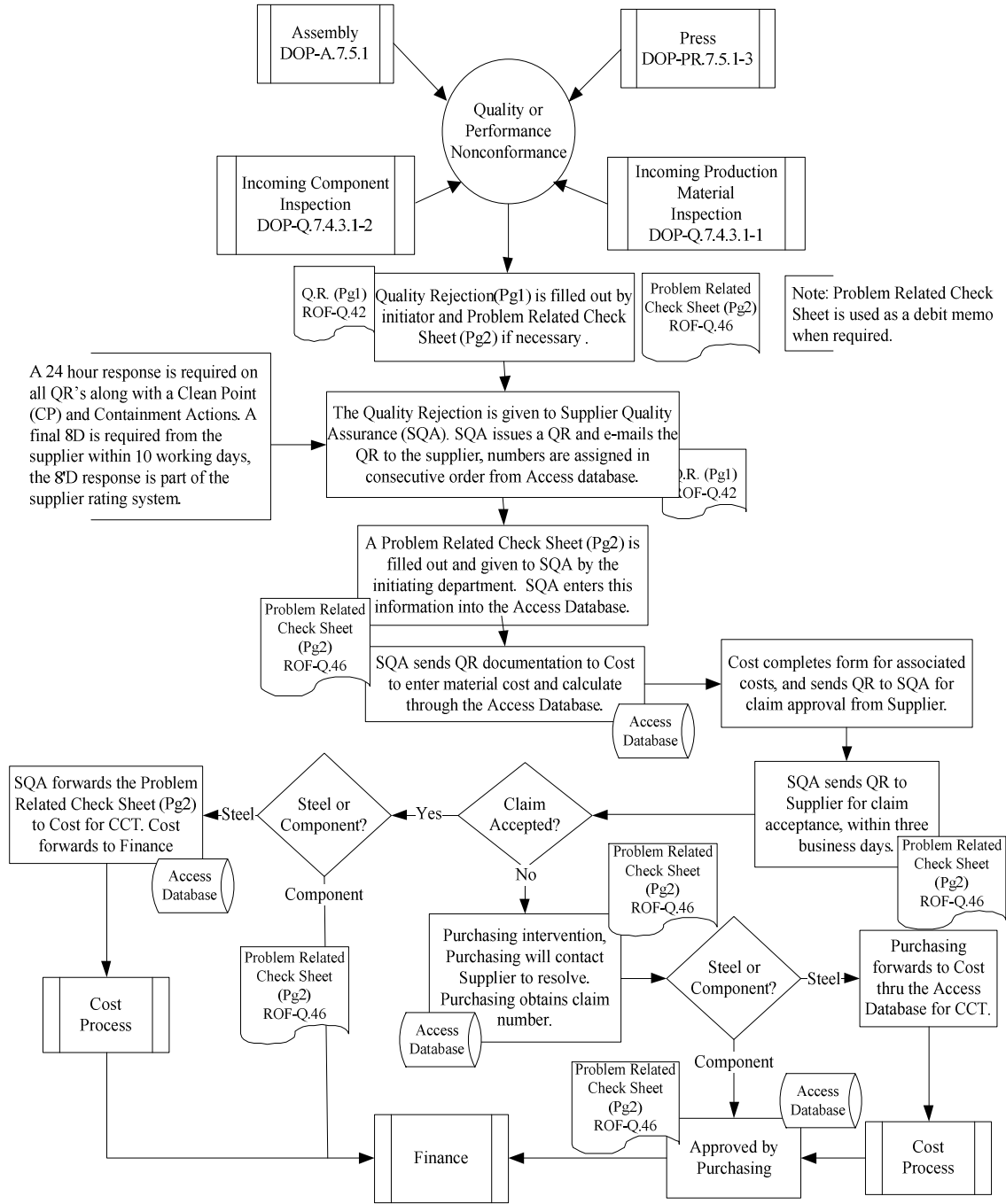
- 6.6 Thai Summit America will use the current edition of the AIAG Production Part Approval Process Manual for determination of when re-submission of a PPAP is required.
- 6.7 Sub-supplier changes must be prior approved in writing by Thai Summit America, Purchasing and SQA. Change of sub-suppliers will require re-submission of Level 3 PPAP.
- 6.8 The Production Part Supplier must notify Thai Summit America SQA for PPAP re-submission on all engineering changes. Thai Summit America SQA will supply a PPAP worksheet, which must be included in the PPAP Evidence Manual, with the manual tabbed and indexed per the worksheet.  
(See the PPAP Requirements Worksheet ROF-Q.40).

Note: The first shipment of the ECN parts must be identified with a Thai Summit supplied ECN tag. Notify SQA for tag (see page 13-ROF-Q.43)

- 6.9 It is the responsibility of all Production Part Suppliers' to ensure that their Tier 2 and Tier 3 Suppliers to Thai Summit America) are meeting similar expectations and requirements.

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## Supplier Quality Rejection (Q.R.) DOP-Q.8.3-2 Rev.6



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### **8. Corrective Action**

- 8.1 The preferred method of Corrective Action Reporting is the 8-D form. If an alternative format is used, it must include all elements of this form. All QR's issued to suppliers require corrective action unless otherwise specified.  
(See Corrective Action Form 8'D ROF-Q.28)
- 8.2 Production Part Suppliers must provide Thai Summit America SQA with a "Clean Point" (CP) within 24 hours each time TSA contacts a Supplier with a concern. This CP will provide TSA with information regarding the approximate arrival of the defect free product at our facility. This information will include containment actions, shipping information, and any other relevant information.
- 8.3 Production Part Suppliers must maintain an Action Register Worksheet, tracking all open issues and review on a regular basis. (See Form # ROF-Q.19 Rev.0)

### **9. Instructions for 8-D Concern Analysis Reports**

#### **Purpose:**

The "Corrective Action Form (8-D)" is to provide management a summary of the status and results utilizing the SPC problem solving methods to eliminate a concern permanently. Complete this form so the person reading it will FULLY understand the concern, the actions taken to resolve the concern, and the effectiveness of those actions.  
(See Corrective Action Form 8'D ROF-Q.28)

#### Completing the Corrective Action Form:

Fill out the Corrective Action Form (8-D) as the actions occur. The following is an explanation of how to complete the form correctly.

1. Part Number: Fill in the complete part number of the part rejected by Thai Summit.
2. Part Name: The name of the part rejected by Thai Summit
3. Manufacturer: Your Company name or Corporation
4. Date Initiated: The received date of the Quality Rejection (QR)
5. QR Number: The Quality Rejection Number supplied by Thai Summit
6. Initiator: The person at your company responsible for the completion of the 8'D
7. Phone Number: The phone number of the person responsible for completion of the 8'D.



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8. Team Members: The names of the team members and their positions responsible for completion of the 8'D with the initiator.
9. Concern Description: Specify the problem by identifying in quantifiable terms the what, who, when, where, why, how, how many for the problem.
10. Picture of Concern: A photo, drawing or clear sketch of the part with nonconformance are indicated by an arrow and notation.
11. Containment Action: Define and implement containment actions to isolate the impact to TSA until permanent corrective action are implemented and verified
12. Root Cause: Identify all potential causes that could explain why the problem occurred. Isolate and verify the root cause by testing each potential cause against the problem description and test data. List the isolated root cause.
13. Corrective Action: Define and implement the best permanent corrective actions. Choose ongoing controls to ensure effective root cause analysis. Once in production, monitor the long-term effects and implement contingency actions, if necessary.
14. Prevention: Modify the management systems, operating systems, practices, and procedures to prevent recurrence of this and all similar concerns.
15. Verification of Corrective Actions: Confirm corrective actions will eliminate the concern and will not cause undesirable side effects. Parts will run over time and quantities inspected then record supporting evidence.
16. Congratulate the Team: Recognize the collective efforts of the team.
17. Date submitted for closure: Fill in the date the completed 8'D was submitted to Thai Summit. The person responsible for the completion of the corrective action must also sign the form. Update the FMEA and Control Plan.

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### **10. Supplier Sort / Rework**

- 10.1 Non-conforming Production Part Supplier products will be returned, unless sorting or rework at Thai Summit America is necessary to prevent production downtime.
- 10.2 Thai Summit America SQA must approve all Supplier rework/work instructions prior to being shipped to Thai Summit America. A sample of the rework performed may be required before approval. **(Note: SRD 11.1 must be submitted/approved; by Thai Summit America Engineering/SQA).**
- 10.3 All reworked product shipped to Thai Summit America must be clearly identified by using the Thai Summit America tag to identify reworked or certified material. All products sorted or reworked at Thai Summit America, must be clearly identified with the Thai Summit America Green X Certification Tag and signed by the Production Part Supplier representative.
- 10.4 All Production Part Suppliers must provide proof of insurance, their own safety glasses, steel toe work shoes, Kevlar gloves, and sleeves, hearing protection and any job specific safety items not listed here when in the Thai Summit Thai Summit facility. All Production Part Suppliers that enter Thai Summit America must complete the Thai Summit Thai Summit safety orientation.
- 10.5 All sorting or rework performed of the Product Part Supplier product by Thai Summit America or an outside source contracted by Thai Summit America will be charged to the Production Part Supplier along with any resultant Thai Summit America or customer line downtime and administrative costs.

### **11. Supplier Request for Deviation (SRD)**

- 11.1 Production Part Suppliers may request a temporary deviation for products that do not meet the requirements of the print, specifications, supply agreement, or the requirements of this manual. A deviation is defined as a known or planned departure from the requirements. A waiver is defined as an unplanned departure from the requirements due to an error or problem. An SRD should be requested from Thai Summit Thai Summit as far in advance as possible of the date of implementation or shipment. The SRD must be filled out completely with an effective Corrective Action and Countermeasure. The SRD must have all signatures before being submitted. No product is to be delivered until the Supplier receives an approved SRD. When product is shipped to Thai Summit America a “Deviation Approval Tag” must be attached to each product container in a visible location, tags are available from OAC Production Supplier Quality. (See sample ROF-Q.43)



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		<b>Thai Summit America Corporation</b> 1480 W.McPherson Park Dr. Howell, Michigan 48843	
Special Material Identification / (ECN)			
THIS SHIPMENT REQUIRES SPECIAL HANDLING			Date:
Part Number:	Quantity:	Purchase Order:	
Part Description:	Model:	Supplier Name:	
Reason Material is Special:		Address:	
		Phone:	
Attention to:		Fax:	
Deviation Approval Only			
Part Number:	Quantity:	Date:	
Part Description:	Supplier #:	QR/SRD #	
Reason for Deviation:			
Attention to:		Approved by:	
TSA Receiving: Send four copies to mail room for distribution. Keep hard copy on material.			
White: Manufacturing Mgr.-Press/Assembly Yellow: Material Handling Mgr. Pink: Purchasing Mgr. Blue: Engineering Mgr. Manilla: Material Copy			

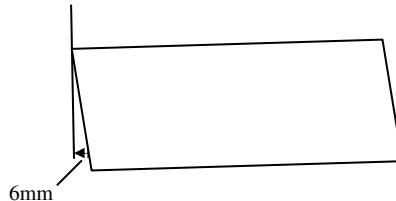
ROF-Q.43 Rev.1

**12. Blanker Specifications:** Must meet TSA standards for delivery of incoming blanks.

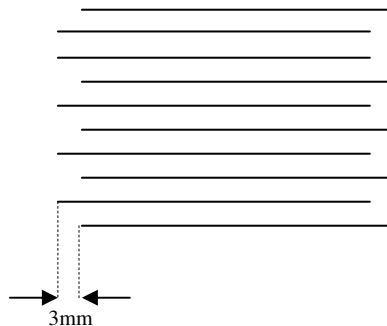
12.1 Flatness – Shall not exceed 6mm, when measured on a flat surface.



12.2 Squareness – The maximum that the squareness may be off is 6mm per the following drawing.



12.2 Stacking – The material stacking can be off by a maximum of 3mm. Please note the following drawing.



12.4 Burrs – The maximum height allowed for a burr is 50% of metal thickness with the understanding and compliance of continuous improvement towards 10% Industry Standard.

12.5 All reworked / deviation material – Must follow the Sort/Rework and SRD processes to allow tracking of the material. Reference 10.0

12.6 Material Thickness – The material thickness can be no more than 10% of the minimum gauge of the material. When the material is of nominal gauge then the material can be +/- 5% of the thickness.

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- 12.7 Quantity Per Lift – The maximum allowed over the set standard piece count is 10%. Example: maximum quantity is 100 pcs the maximum allowed would be 110 pcs. The minimum height of the lift of steel is 100mm tall (not including skid).
- 12.8 Blank and or Coil Width – Use the ASTM standard.
- 12.9 Critical Blank Dimension Tolerance to be +/- 3.0 mm - If blank does not exhibit critical dimensions, ASTM Standards for coil width and pitch will apply.
- 12.10 Quality of Blanks – The surface is to be free of dirt, pits, waves, lamination, galvanized flaking, roller marks, pincher marks, scratches, strain marks, stretch marks, orange peel, excessive oil, and stains. The material is to be free of rust, bent corners, slug marks, and handling damage. Note: Unless otherwise noted surface standards should follow customer requirements first and industry standards second regarding class A or B. Examples being dirt, lamination, scratches, rusts stains, etc.
- 12.11 Oil Standards – 110 mg per square foot +/- 40, unless otherwise specified on the purchase order or PPAP
- 13. Checking Fixture/Gage Build/Design Specifications**
- 13.1 *Supplier must obtain information manual from OAC's Purchasing Department or Dimensional Control Engineers.*

We at Thai Summit America Corporation value our Product Part Suppliers'. Thank you for being an essential part of shipping the best in automotive parts to our customers. We recognize you play an invaluable role in our ability to produce quality products on time.

We are committed to meeting or exceeding customer expectations and since the automotive industry is placing ever-increasing demands on suppliers for continual improvement, we must act on issues we do not directly control to protect our long-term customer relationships. It is an absolute necessity for Thai Summit to pursue aggressive objectives with our suppliers.

We will continue to rely on you and work with you to ensure our mutual success.