GLOENCO
an AFGlobal Company

Supplier Quality Manual
SQM-001

OUR SUPPLIER RELATIONSHIPS ARE KEY TO OUR MUTUAL SUCCESS. CONTINUED SUCCESS WILL RELY ON EFFECTIVE COMMUNICATION WITH OUR SUPPLIERS TO MEET OR EXCEED OUR EXPECTATIONS

IT IS OUR COMMITMENT TO COMMUNICATE TO OUR SUPPLY BASE OUR CONTINUAL IMPROVEMENT PHILOSOPHY, AND THAT THIS INFORMATION WILL BE BENEFICIAL IN DEFINING THE EXPECTATIONS OF AF GLOENCO

AF Gloenco - Greenville
299C Garlington Road
Greenville, SC 29615
Tel: (864) 672-8900 ▪ Fax: (864) 672-8905

AF Gloenco - Newport
452 Sunapee St.
Newport, NH 03773
Tel: (603) 863-8600 ▪ Fax: (603) 863-6884

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Supplier Quality Manual

1.0 PURPOSE

1.1. The purpose of this manual is to communicate AF Gloenco Quality requirements and expectations to suppliers. It is the intent of AF Gloenco to do business with suppliers who are able to provide parts/materials/processes and services consistently to specifications, at a competitive price, and in accordance with the defined delivery schedule. The manual is intended to assist suppliers in their understanding of requirements regarding specific management, communication, and reporting processes.

2.0 SCOPE

2.1 The contents of this manual apply to all AF Gloenco suppliers of production material and services.

3.0 QUALITY SYSTEMS REQUIREMENTS

All Gloenco suppliers are required to maintain an effective quality management system that conforms to ISO 9001:2008 Quality Management Systems – Requirements. In addition, the supplier must meet all other requirements of this manual.

4.0 RECORD RETENTION

4.1 Suppliers shall have a written procedure for the documentation and retention of quality and product records for products supplied to AF Gloenco. Records shall include, but are not limited to, inspection records, test plans and results, material certifications, CoC's, and qualification documentation. Specific component record requirements may be specified on AF Gloenco purchase orders, contracts, or specifications. It is the responsibility of the supplier to determine the appropriate storage means to meet the retention requirements and provide for timely retrieval of records.

4.1.1 Unless otherwise specified by the Gloenco purchase order or contract, quality records shall be retained for a minimum of (30) thirty years.

5.0 APPROVED SUPPLIER LIST

5.1 Production parts/materials/processes and services will be purchased from suppliers on the AF Gloenco "Approved Supplier" list. AF Gloenco evaluates and selects suppliers based on their ability to supply product/services in accordance with specified requirements.

5.1.1 Gloenco reserves the option to use suppliers not on the Approved Suppliers List as noted below:

5.1.1.1 Product is 100% inspected upon receipt at Gloenco.

5.1.1.2 Source Directed by the Gloenco contract authority.

6.0 SUPPLIER ASSESSMENTS

6.1 With prior notification AF Gloenco will conduct onsite Quality System audits at supplier's facilities. The goal of the audits is to understand supplier's capabilities and quality systems and to identify continuous improvement opportunities.

6.2 Current suppliers may be audited if there are ongoing quality problems, and/or repeated failure to comply with AF Gloenco requirements.

6.3 Tool moves to a different supplier manufacturing facility other than the facility to which the purchase order was issued, may require a Quality System audit of that facility.

6.4 Suppliers are prohibited from moving tools without prior notification and approval from AF Gloenco. A new First Article Approval may be required.

6.5 Suppliers will be sent a Supplier Quality System Self Survey before the audit date. This pre-assessment shall be returned prior to AF Gloenco conducting the audit. Following the audit AF Gloenco will forward our findings and any needed corrective actions on the part of the supplier. Results of the audit will be used in the sourcing decision of potential suppliers.

7.0 SUPPLIER PART APPROVAL PROCESS (SPAP)

7.1 General Requirements.

7.1.1 Parts submitted for SPAP must be taken from a production run. The run must be manufactured at the supplier's site, utilizing tooling, gaging, processes, material and manpower in a production environment.

7.1.2 Parts must meet all specified requirements or the supplier gains Gloenco's approval for any requirements not met, prior to submitting parts for SPAP approval.

7.1.3 All applicable items and records to the extent noted in the Retention/Submission Requirements Table *(Appendix F)* must be readily available regardless of the submission level. Record retention requirements are noted in the Supplier Quality Manual SQM-001.

7.1.4 The Quality Engineer with input from the Quality Manager where necessary is responsible for defining and communicating the required sample sizes for the Sample Parts when applicable.

7.1.5 SPAP Requirements:
Refer to *Appendix F* for the requirements of which items are required to be either retained at the supplier's facility or submitted with the SPAP.

7.1.6 Design Records/Drawings:
Supplier must have a hardcopy of the Design Record/Drawing, and associated Specifications.

7.1.7 Engineering Change Documents:
Supplier must have a copy of any changes not yet in the design documentation but incorporated into the product.

7.1.8 Process Flow Diagrams:
Documentation should clearly describe the production process steps and sequence. See also Manufacturing Process Plan.

7.1.9 Process FMEA:
Not initially required for SPAP submittal. Persisting quality issues may cause the initiation of a Process FMEA as part of a problem solving initiative by the supplier.

7.1.10 Dimensional Results:
Actual measurement results must be listed is a format similar that meets all the requirements of AS9102 First Article Inspection Requirements. **And parts used for FAI must be clearly identified.** All documents must refer to the Engineering Change level and date. Results are required for each unique manufacturing process. The supplier will provide a copy of the part drawing with each dimension, note and characteristic uniquely identified to correspond to the dimensional results report. *(Reference Appendix C example. Forms are available on request.)*

7.1.11 Material/Performance Test Results:
At a minimum, the supplier shall certify compliance to the material specified by the design record. This may include chemical, physical, metallurgical, performance or functional test results.

7.1.12 Initial Process Studies:
Initial Process performance must be determined for key features prior to Full SPAP Approval. Measurement Systems Analysis (Gage R&R) must be performed prior to data collection to understand how measurement error may affect process performance measurements. Process capability of Cpk 1.33 or greater short term is required, and Ppk 1.67 long term is required. Until the required capability is achieved on all KCC's, 100% inspection is required.

7.1.13 Measurement System Analysis:
Measurement System Analysis must be available for all gages, and test equipment use for acceptance of KCC's

7.1.14 Qualified Laboratory Documentation:
Not Required

7.1.15 Control Plan:
Documentation of product and process characteristics, process controls, tests and measurements that occur during production. AIAG specific format is not required.

7.1.16 Part Submission Warrant (PSW):
Supplier must use the approved Gloenco form. *Ref. Appendix F***.**

7.1.17 Appearance Approval Report:
Not Required

7.1.18 Bulk Material Requirements Checklist:
Not Required

7.1.19 Sample Parts:
Sample parts will be submitted when required as noted. ***Ref. Appendix F*.**

7.1.20 Master Sample:
Not Required

7.1.21 Checking Aids:
If requested the supplier shall submit for review and part specific assembly or part checking aids. Checking aids can include part specific fixtures, gages, models, templates, mylars, etc.

7.1.22 Records of Compliance with Gloenco Requirements:
Supplier is responsible to submit any other Gloenco requirements upon request.

8.0 NOTIFICATION AND SUBMISSION REQUIREMENTS

8.1 SPAP must be submitted for:

8.1.1 New part design (initial releases to production or production intent revision levels)

8.1.2 Correction of a discrepancy on a previously submitted part

8.1.3 Engineering change to design records, specification or materials

8.1.4 Existing part moved to a different facility or supplier location

8.2 Gloenco notifications of product or process changes are required for the following. SPAP may be required as determined by Gloenco Quality and Engineering.

8.2.1 Use of other material or finishing when the alternate materials and/or finishing are allowed by the design record.

8.2.2 Production from new or modified tools (except perishable tools), dies, molds, patterns etc.

8.2.3 Production following refurbishment or rearrangement of existing tooling or equipment

8.2.4 Production from tooling or equipment moved to a different facility location

8.2.5 Change of sub-contractor (e.g. heat treat, plating, etc.)

8.2.6 Use of processes, and/or tooling after 12 months of inactivity.

8.2.7 Product or process changes related to components of the production part that impact fit, form or function.

8.2.8 Changes in the inspection or test methods.

8.3 SPAP and Gloenco notification IS NOT required for:

8.3.1 Tooling or equipment movement within the same facility

8.3.2 Re-balance of process job content with no changes to the location of specific work content.

8.3.3 Normal Maintenance, replacement or repair of parts, etc…where no change in process performance is expected, and were post repair verification methods have been established.

9.0 SUBMISSION LEVELS

9.1 Level I

9.1.1 Requires the PSW to be submitted. This level would typically be used when there is a revision change to the drawing that does not affect Fit, Form or Function i.e. correction or clarification of drawings, and there is a SPAP on file for the previous revision.

9.2 Level II

9.2.1 This is the default level when there are no KCC's on the design record, unless otherwise specified in the purchase order

9.3 Level III

9.3.1 This is the default level when there are KCC's on the design record unless otherwise specified on the purchase order

9.4 Level IV

9.4.1 This level requires a Gloenco representative (engineer, and/or quality engineer) to specify items that are required for retention and/or submission. This will be communicated on the purchase order.

9.5 Level V

9.5.1 Same as Level III only reviewed at the supplier's location.

10.0 PART SUBMISSION STATUS

10.1 Full Approval

Indicates part or material meets all specifications and requirements. Supplier is approved to ship production product

10.2 Interim Approval

Supplier is authorized to ship parts on a limited basis either by quantity or time period. Interim approval status is used as a period to assess supplier's process capability by means of an Initial Process Capability study. If after 4 separate production runs the process is not proven capable the supplier will provide an action plan to address the causes of the lack of capability. Shipments beyond the Interim Approval are not authorized.

10.3 Rejected

Indicates submission does not meet requirements. Supplier is required to re-submit SPAP prior to shipping production orders.

11.0 TEMPORARY DEVIATION

11.1 If a supplier manufactures product that does not conform to AF Gloenco specifications and lead-time does not allow permanent corrective action due to AF Gloenco production requirements, a temporary deviation request must be submitted to AF Gloenco and approved prior to shipping non-conforming material.

11.2 AF Gloenco approval will be based on how deviations might impact the form, fit and function of AF Gloenco product.

11.3 Deviation requests must include details of the non-conformance and the number of parts affected. AF Gloenco Engineering Change and Supplier Deviation Request form shall be used. *Reference Appendix D Supplier Deviation Forms.*

12.0 PROCESS CHANGE REQUEST (PCR)

12.1 A Process Change Request form must be submitted and approved if any of the following occur. *Reference Appendix E – Process Change Request Form*

12.1.1 Change in the manufacturing process and or tooling

12.1.2 Additional tooling or added cavities to tooling currently approved for production

12.1.3 Manufacturing location changes

12.1.4 Sub-supplier changes

12.1.5 Changes in any Material used within product supplied to AF Gloenco.

13.0 PROBLEM RESOLUTION

13.1 CAR Process:

13.1.1 Upon receipt of nonconforming material AF Gloenco may issue an 8D Corrective Action Request. *Reference Appendix A - Notification of Non-Conforming Material, and Appendix B - 8D Problem Solving Guidelines Forms.*

13.1.2 If problems are found during pre-production fitting trials or are considered minor issues AF Gloenco will issue Quality Alerts to the supplier describing the problem.

13.1.3 Return Material Authorization (RMA) must be provided for material that is defective or considered suspect and needs to be returned to the supplier.

13.1.4 AF Gloenco reserves the right to sort suspect material to avoid shutdown of production lines, and debit the supplier for any costs incurred by AF Gloenco.

13.1.5 Within 2 business days of notification of defective parts through Non-Conforming Material Notification report, suppliers must:

13.1.5.1 Implement requirements of Normal Containment and communicate to AF Gloenco the clean point and the method of identification of parts.

13.1.5.2 Inform AF Gloenco the plan to replace suspect material

13.1.5.3 Identify short term corrective actions to assure no further defectives are supplied.

13.1.5.4 Send initial 8D responses

13.1.6 Within 10 business days of notification of defects suppliers must:

13.1.6.1 Define and verify Root Causes of defect and Causes for the escape of defective material from the supplier facility.

13.1.6.2 Determine and Implement permanent corrective actions for Root Cause.

13.1.6.3 Verify and Validate permanent corrective actions.

13.1.7 AF Gloenco will review the final 8D response and provide the supplier with a decision on closure of the 8D. 8D responses will be Accepted, Conditionally Accepted or Rejected. Resubmission of the 8D response with discrepancies corrected is required within 5 days.

14.0 PROBLEM SOLVING EXPECTATIONS

14.1 When AF Gloenco issues Supplier Corrective Action Requests, suppliers are required to submit a formal response. 8D responses must be in the format supplied by AF Gloenco. Below is list of information that is required to be included in the 8D response.

14.1.1 Problem Statement

14.1.1.1 Define problems in detail

14.1.1.2 Identify the requirement that is defective. Must include the specified requirements and the actual condition.

14.1.1.3 Identify when the problem started

14.1.1.4 List manufacturing dates of defective material

14.1.2 Interim Containment Action

14.1.2.1 Define and verify Interim Containment Actions

14.1.2.2 Provide daily sort results

14.1.2.3 All stock locations must be reviewed and re-inspected.

14.1.2.4 Describe method of sorting including the method for identifying the status of the material.

14.1.2.5 Validate effectiveness of Internal Containment Action

14.1.3 Root Cause Analysis

14.1.3.1 Define in detail the root cause

14.1.3.2 Verify the root cause

14.1.3.3 Address the Escape Point (Place in the process where the effect of the root cause should have been detected and contained).

14.1.3.4 The method to contain the issue causing the defect until corrective action is implemented and proven effective.

14.1.3.5 Use the 5 Why approach, or other effective method for documenting the approach

14.1.3.6 Permanent Corrective Actions must address the root cause and the Escape Point

14.1.3.7 Must be very detailed. Describe who will do what and how it will be implemented and when.

14.1.3.8 Verify and validate the corrective actions. Describe in detail method of verification.

14.1.4 Prevent Recurrence

14.1.4.1 Modify necessary policies and procedures to prevent reoccurring problem

14.1.4.2 Evaluate whether corrective actions can be implemented on similar products or processes.

14.1.5 Objective Evidence

14.1.5.1 Objective Evidence of all action taken is required to be submitted with 8D responses i.e. revised processes sheet, tooling changes, gage changes etc.

14.1.5.2 Approval and closure of 8D Responses will be at the discretion of AF Gloenco QC. All 8Ds will remain open until problem-solving requirements are met.

14.1.6 Containment

14.1.6.1 Suppliers are responsible for developing a process to protect AF Gloenco from receiving material that does not meet the quality requirements and specifications set by AF Gloenco. Suppliers must include at minimum elements of the following process of containment.

14.1.7 Controlled Containment

14.1.7.1 Suppliers will be placed into Controlled Containment as a result of AF Gloenco or AF Gloenco's customer receipt of defective material. Suppliers will be required to take immediate actions to cease shipping defective material. These actions include:

14.1.7.2 Sending 100% certified parts for all shipments to AF Gloenco

14.1.7.3 Marking certified parts as agreed to by AF Gloenco.

14.1.7.4 Expedite Sending certified replacement parts to replace suspect parts in-transit and in AF Gloenco inventory.

14.1.7.5 Utilizing a Certified Part identification label to identify certified shipments.

14.1.7.6 Collecting daily sort data and reporting findings to AF Gloenco.

14.1.7.7 Suppliers will be released from Controlled Containment once the 8D response has been approved.

15.0 SUPPLIER QUALITY MEETINGS

15.1 Suppliers with less than the expected Quality Levels of 85% may be required to attend Incoming Quality (IQ) Meetings when their performance drops below expected levels. Meetings are mandatory and will be held at AF Gloenco. These IQ meetings and the need and/or frequency will be at the discretion of AF Gloenco.

15.2 The purpose of IQ meetings is for Suppliers to present containment and corrective actions to improve their performance in the deficient areas identified by AF Gloenco Suppliers can be called to attend IQ meetings for:

15.2.1 Poor Quality

15.2.2 Repetitive Issues

15.2.3 Responsiveness to concerns raised by AF Gloenco

15.2.4 Delivery discrepancies, against planned delivery schedules.

15.3 Suppliers will be notified of IQ meetings in advance and will be required to have attendees from Plant Management and Quality Management. Other personnel may also be required to attend.

16.0 NEW BUSINESS HOLD

16.1 Suppliers may be placed on AF Gloenco business hold if the supplier, has on-going quality or delivery problems that are unresolved in a time to be agreed upon between AF Gloenco and the Supplier. The supplier will be notified upon being placed on New Business Hold

16.1.1 The following may occur if a supplier is placed on New Business Hold:

16.1.1.1 Formal meeting with AF Gloenco

16.1.1.2 May be removal from Approved Supplier Status

16.1.1.3 No longer allowed to quote on any future business

16.2 To be removed from New Business Hold the supplier must implement corrective actions for the cause of their deficiencies and address preventative actions to prevent recurrence. A plan for implementation must be provided to AF Gloenco for approval. Once a supplier has satisfied the requirements of AF Gloenco they will return to the Approved Supplier List when verification of effectiveness of the Actions taken have been proven to be effective. The number of lots or shipments required to prove effectiveness will be at the discretion of AF Gloenco.

17.0 COST RECOVERY

17.1 Suppliers will be responsible for all costs associated with AF Gloenco or AF Gloenco's customers receiving defective material. Costs may include, but are not limited to:

- Administrative
- Sorting of suspect material
- Rework
- Customer Charges
- Premium Freight
- Production Downtime
- Third party containment
- Scrap
- First Article rejection
- Overtime
- Laboratory Testing
- Travel

18.0 DELIVERY REQUIREMENTS

18.1 Suppliers are expected to achieve 100% on time delivery. If a supplier will be unable to deliver product by the required due date, it is the suppliers responsibility to notify AF Gloenco as soon as the inability to deliver is determined.

18.1.1 Notification to AF Gloenco must occur when suspect material may been shipped. Suppliers are to notify the AF Gloenco Purchasing Department.

Associated Documents

R7.5.1.08, Part Submission Warrant
R7.5.1.09, FAIR Approval Report
R7.5.1.10, First Article Inspection Report (FAIR, Forms 1, 2 & 3)
R7.5.1.20, Process Change Request (PCR)
R8.3.0.10, Supplier Deviation Request (SDR)

APPROVALS	
Quality Assurance Manager: _____ Dana Carter Date	Sr. Buyer: _____ Kelly Schnurr Date

REVISION HISTORY				
Revision Level	Date of Revision	Section	Paragraph	Nature of Change
1.0	03/12/2013	All	All	Initial Release
1.1	04/23/2013	12,15,16	12.1.5, 15.0, 16.0	Added Para. 12.1.5, Para. 15.1 Clarified expectation of Delivery, Para. 16.2 Added detail on removal from New Business Hold.
1.2	01/13/2014	4.0	4.1.1, 4.1.2	Revised para. 4.1.1 to read: Unless otherwise specified by the Gloenco purchase order or contract, quality records shall be retained for a minimum of (30) thirty years. Deleted para. 4.1.2. Changed Production Approval to Denise Howell
1.3	12/15/2014	7.0	7.1.10, 7.1.12 Appendices	7.1.10: Bolded and Underlined "Sample Parts must be clearly identified. 7.1.12: Changed Cpk to Ppk. Added Glossary of Abbreviations. Added Appendix G

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APPENDIX A

Nonconforming Material Notification Form

CONTROLLED CONTAINMENT

August 15, 2016

ATTN: Quality Manager
Supplier Name
Supplier Address 1
CITY, State, ZIP

Subject: Entry into Controlled Containment

Dear Quality Manager

AF Gloenco has determined that current controls by your organization are not sufficient to assure AF Gloenco will not receive nonconforming material produced by your facility. This letter is formal notification that your facility has been placed on Controlled Containment for the following part(s).

Part Description: AF Gloenco Part Number and Description
Non-conformance(s): **Corrective Action (8D) Number:**
Nonconformance Description

The procedures you have enacted to date have been insufficient in stopping the flow of non-conforming material to our plant. **Therefore, you must immediately:**

1. **Develop, define, and implement an agreed-upon containment activity over and above your current process controls and containment activity.**
2. **Clearly identify the certified shipments.**
3. **Return the attached "Controlled Containment Confirmation Reply" within 24 hours of the receipt of this letter.**
4. **Meet the defined exit criteria.**

If you have any questions, contact Name, Phone Number and E-mail address of Gloenco Supplier Quality Engineer

Sincerely,
AF Gloenco , Director Quality Assurance

CONTROLLED CONTAINMENT CONFIRMATION REPLY

To: NAME
AF Gloenco
299C Garlington Road
Greenville, SC 29615

Email: Dcarter@Ameriforge.com

From: Supplier to complete

We acknowledge receipt of your Controlled Containment letter, advising us that our facility has been placed on Controlled Containment.

SELECT ONE BOX

☐ We understand the Controlled Containment requirements

☐ We do not fully understand the Controlled Containment requirements.
Please contact: AF Gloenco Supplier Quality Assurance Manager

Following is a description of how conforming parts and shipments will be identified to indicate that they have been qualified as conforming to requirements. Include AF Gloenco Job # and specific non-compliance(s).
SUPPLIER TO FILL IN THE DETAILS

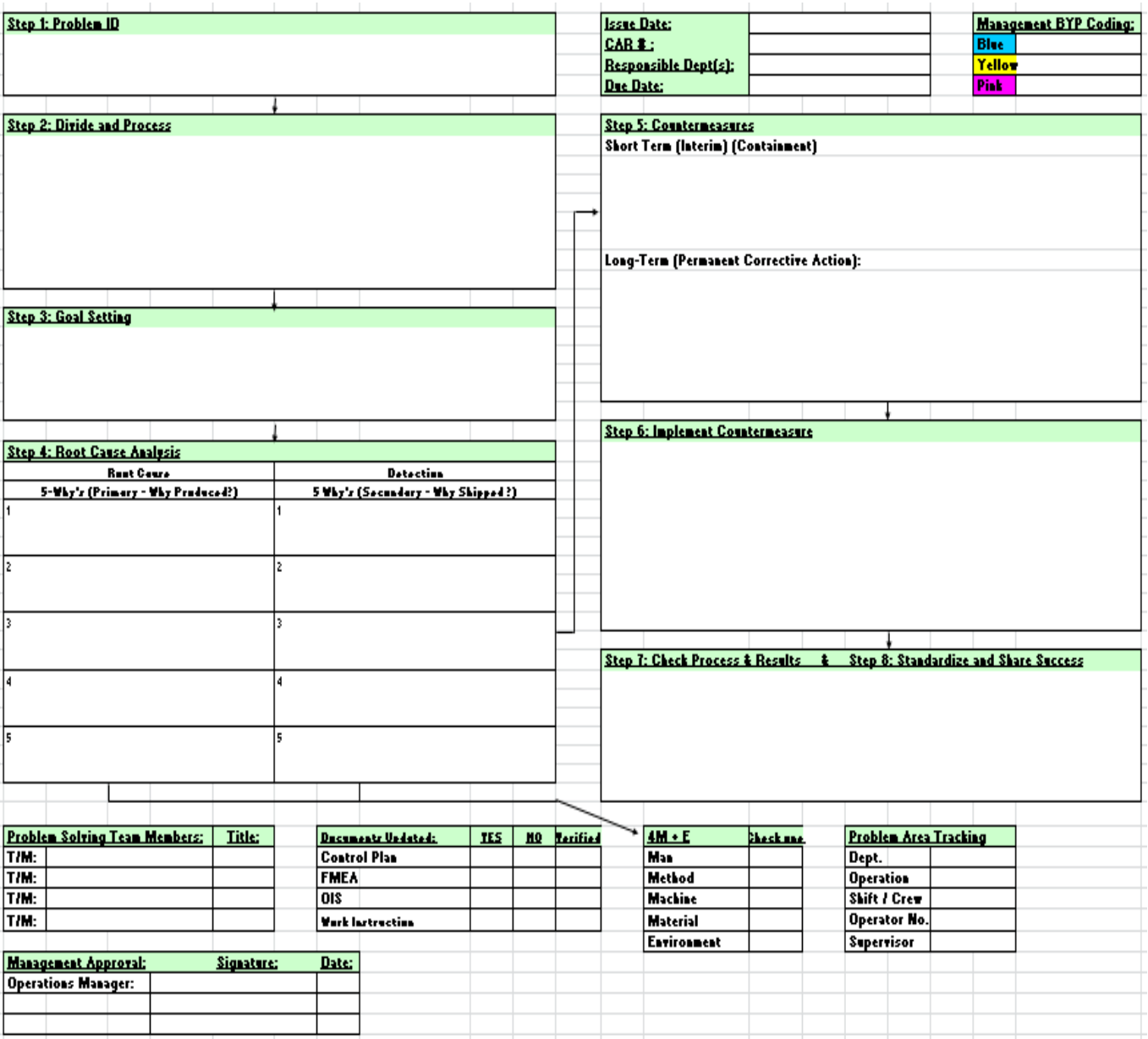
The containment activity will be performed at the following location:
SUPPLIER TO FILL IN THE DETAIL - Please type in.

The person responsible for the containment activity by Supplier
Name: SUPPLIER TO COMPLETE email address: SUPPLIER TO COMPLETE
Telephone: SUPPLIER TO COMPLETE Date: SUPPLIER TO COMPLETE

APPENDIX B

8D Problem Solving Process
“EXAMPLE”

8D Problem Solving Format



Step 1: Problem ID

Issue Date:	
CAR # :	
Responsible Dept(s):	
Due Date:	

Management BYP Coding:	
Blue	
Yellow	
Pink	

Step 2: Divide and Process

Step 3: Goal Setting

Step 4: Root Cause Analysis	
Root Cause	Detection
5-Why's (Primary - Why Produced?)	5 Why's (Secondary - Why Shipped?)
1	1
2	2
3	3
4	4
5	5

Step 5: Countermeasures
Short Term (Interim) (Containment)
Long-Term (Permanent Corrective Action):

Step 6: Implement Countermeasure

Step 7: Check Process & Results & Step 8: Standardize and Share Success

Problem Solving Team Members:		Title:
T/M:		
T/M:		
T/M:		
T/M:		

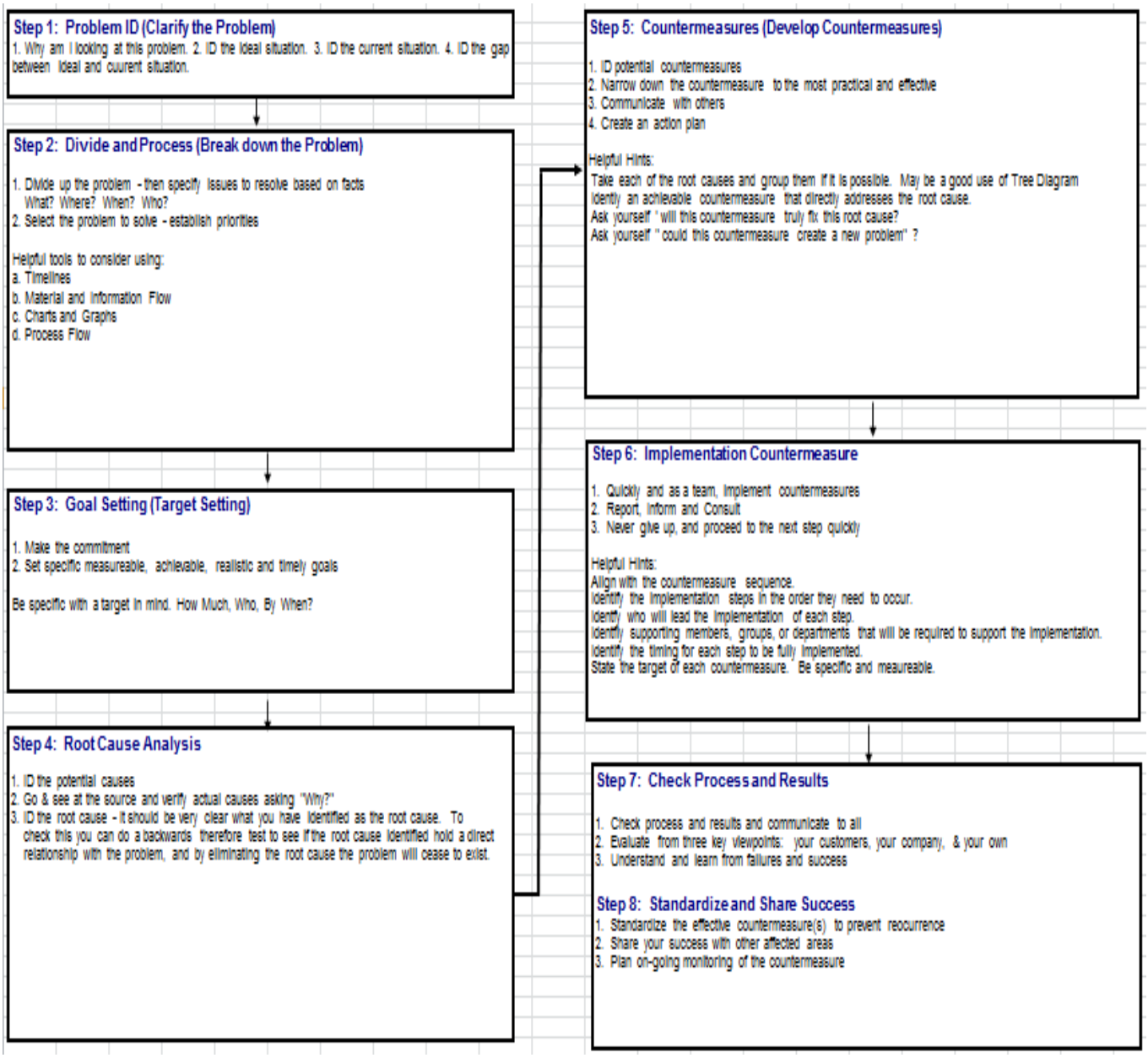
Documents Updated:	YES	NO	Verified
Control Plan			
FMEA			
OIS			
Work Instruction			

4M + E	Check one
Man	
Method	
Machine	
Material	
Environment	

Problem Area Tracking	
Dept.	
Operation	
Shift / Crew	
Operator No.	
Supervisor	

Management Approval:	Signature:	Date:
Operations Manager:		

8D Problem Solving Format



APPENDIX C

First Article Approval Report
First Article Forms

First Article Approval Report

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First Article Inspection Report
(FAIR) Approval Report

Part #: _____ Rev: _____ PO #: _____
Desc.: Inspector: _____
Supplier: Date: _____

Only parts that fully comply with all specifications as listed on the drawing can be submitted for First Article Approval. Under NO circumstances can a first article package be submitted with and missing or non-conforming attributes without written approval from

_____ _____
AF Gloenco Quality Supplier Representative Date

Reason for First Article

☐ New Part ☐ Tool Mod ☐ Process Change
☐ New Tooling ☐ New Mfg. Facility
☐ New Equipment ☐ New Supplier

Fit, Form, Function, Dimensional, Material Approval

Comments:

☐ Approved ☐ Not Approved

_____ _____
AF Gloenco Manufacturing Engineer Date

Supplier Process Document Review Approval

Comments:

First Article Approval

☐ Approved ☐ Not Approved

_____ _____
AF Gloenco Quality Engineer Date

First Article Form 1 of 3

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First Article Inspection Report (FAIR) - Form 1

Form 1: Part Number Accountability Sheet 1 of ____

1. Part Number	2. Part Name	3. Serialized Number	4. FAI Report Number
5. Part Revision Level	6. Drawing Number	7. Drawing revision	8. Additional Changes
9. Manufacturing Process	10. Organization Name	11. Supplier Code	12. P.O. Number
13. Detail FAI ☐ Assembly FAI ☐	14. Full FAI ☐ Partial FAI ☐ Reason for Partial FAI:	Assembly Part Number (including revision level)	

a) If above part number is a detail part only, go to Field 19

b) If above part number is an assembly, go to the "INDEX" section below.

INDEX of part numbers or sub-assembly numbers required to make the assembly noted above.

15. Part Number	16. Part Name	17. Part Serial Number	18. FAI Report Number

1] Signature indicates that all characteristics are accounted for; meet drawing requirements or are properly documented for disposition.

2] Also indicate if the FAI is complete per Section 5.4 of AS9102: FAI ☐ complete FAI not

19. Signature of Person Completing Report	20. Date
21. Report Reviewed by (Quality Representative):	22. Date
23. Customer Approval Stamp (if applicable):	24. Date

FAI Status: ☐ FAI Acceptable ☐ FAI Pending ☐ FAI Rejected

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First Article Inspection Report (FAIR) - Form 2

Form 2: Product Accountability - Raw Material, Specifications and Special Process(es), Functional Testing

Sheet 1 of ____

1. Part Number	2 Part Name		3. Serial / Lot Number		4. FAI Report Number
0	0				0
5. Material or Name / **5a. Customer Requirement**	**6. Specification Number & Revision Level**	7. Code	**8. Special Supplier Code**	**9. Customer Approval Verificati** (Yes / No / NA)	**10. Certificate of Conformance No.**

11. Functional Test Procedure Number	12. Acceptance report number, if applicable

13. Comments

14. Prepared By	15. Date

First Article Form 3 of 3

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First Article Inspection Report
(FAIR) - Form 3

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial# or	4. FAI Report
0	0		0

Characteristic Accountability						Inspection / Test Results			Other Fields
5. Char No.	6. Reference	7. Characteristic	8. Requirement	8a. UoM	8b. Tolerance	9. Results	10. Designed Tooling	11. Non-Conformance	14. Notes

The signature indicates that all characteristics are accounted for; meet drawing requirements or are properly documented for disposition.

12. Prepared By | 13. Date

APPENDIX D

Supplier Deviation Request

Deviation Request

GLOENCO an AFGlobal Company

Supplier Deviation Request (SDR)

To (AF Gloenco Buyer):	From:	
Supplier Name/Address:	Phone:	
	FAX:	
	E-Mail:	

This is a Request for Deviation to allow shipment of the following:

Part No:	Revision:	Requested Quantity, Duration or Lot #
Part Name:		

Specification or Requirement:
Description of Deviation:
Reason for Deviation:
Corrective Action Taken:

Buyer Review	☐ Will Pursue	☐ Will NOT Pursue	Initial: Date:

AFG Response:

☐ Deviation Granted	Approval Duration:	Deviation #	Special Product Identification Requirements
☐ Deviation Denied	Reason:		

Approval Required

Required	Gloenco Required Approval	Signature	Date
	AFG Quality Assurance		
	AFG Engineering		
	AFG Purchasing		
	Other		

Other Actions Required (Supplier and/or AF Gloenco)

Will this deviation results in a Permanent Engineering Change: ☒ YES ☐ NO

Distribution:

☐ Quality ☐ Production Manager ☐ Scheduling
☐ Process Engineering ☐ Sales ☐ Shipping

APPENDIX E

Process Change Request Form

Process Change Request Form

GLOENCO an AFGlobal Company

Process Change Request Form (PCR)

The Process Change Request (PCR) Form must be used by the supplier to notify AF Gloenco of a request for change to the manufacturing location, purchased product, part/assembly, associated packaging, design, materials, manufacturing facility location or manufacturing/test/inspection processes. The request allows AF Gloenco to document, review and determine risks associated to AF Gloenco processes and products. Part samples may be required for approval prior to approval of any changes. The PCR form must be received at least 8 weeks (6 weeks for a manufacturing location change), plus normal lead time, prior to the target date for the

Supplier:	Requested by:
Part Name:	Phone Number:
Part Number:	Submitted to:
Target Ship Date:	Date Submitted:

Change Description *(Mark Applicable Items)*

☐ Design Change	☐ Process/Equipment Change
☐ New Sub-Supplier	☐ Tooling Change
☐ Material Change	☐ Mfg. Location Change *(4 weeks notification)*
☐ Mfg. Method Change	☐ Packaging Change
☐ Inspection/Test Change	☐ Other Change

Supplier - Describe Change *(attach additional pages as required)*

AF Gloenco Comments and/or Recommendations:

☐ If Checked Trials and/or Samples are Required

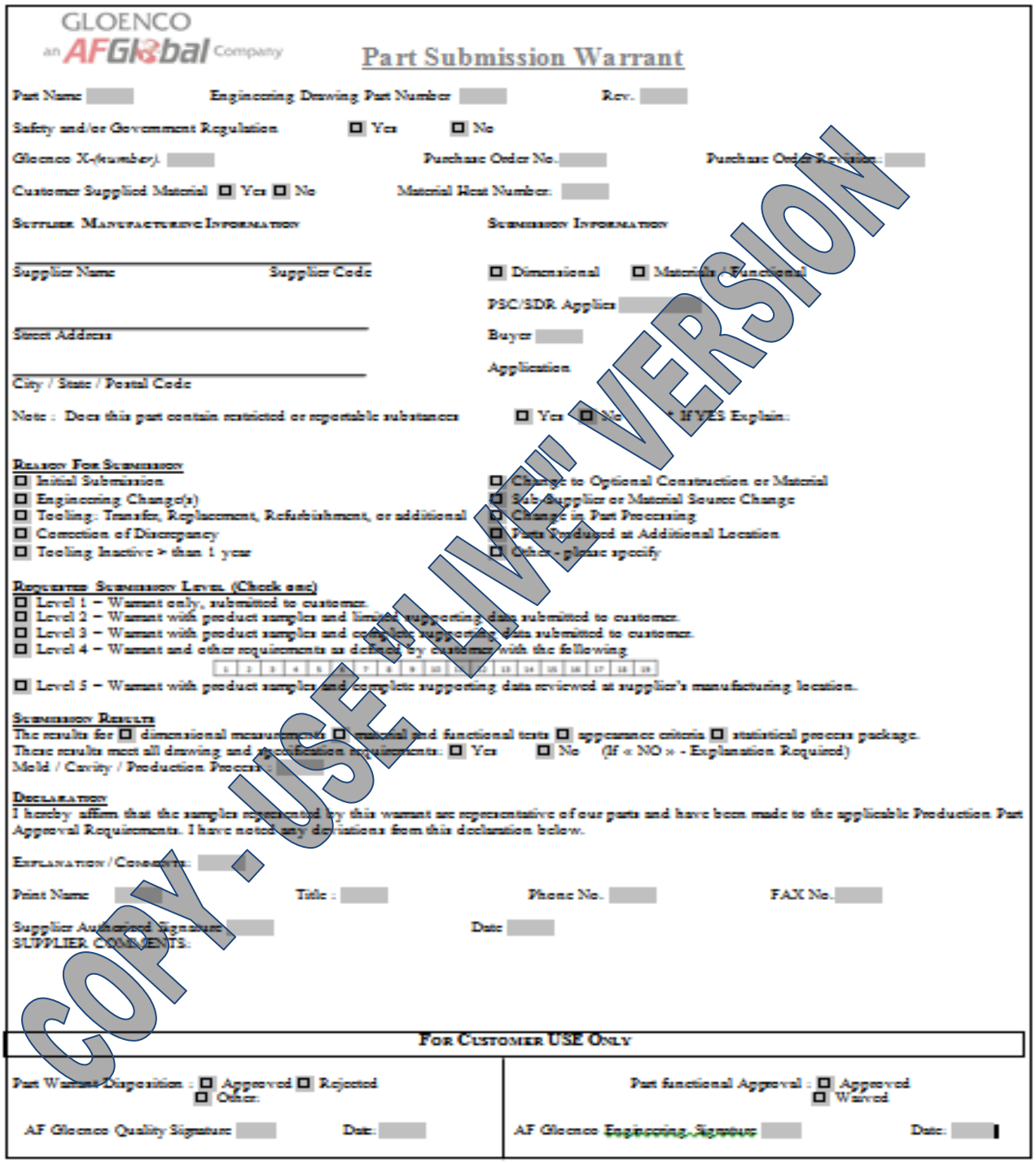
AF Gloenco Engineering:	Date:
AF Gloenco Quality Engineer:	Date:
AF Gloenco Buyer:	Date:

APPENDIX F

Part Submission Requirements

Part Submission Warrant (PSW)
Part Submission Requirements Matrix

Part Submission Warrant (PSW)



GLOENCO
an AFGlobal Company

Part Submission Warrant

Part Name: Engineering Drawing Part Number: Rev.:

Safety and/or Government Regulation: ☐ Yes ☐ No

Gloenco X-(number): Purchase Order No.: Purchase Order Revision:

Customer Supplied Material: ☐ Yes ☐ No Material Heat Number:

Supplier Manufacturing Information

Supplier Name: Supplier Code:

Street Address:

City / State / Postal Code:

Submission Information

☐ Dimensional ☐ Materials / Functional

PSC/SDR Applies:

Buyer:

Application:

Note : Does this part contain restricted or reportable substances ☐ Yes ☐ No * If YES Explain:

Reason For Submission

☐ Initial Submission
☐ Engineering Change(s)
☐ Tooling: Transfer, Replacement, Refurbishment, or additional
☐ Correction of Discrepancy
☐ Tooling Inactive > than 1 year
☐ Change to Optional Construction or Material
☐ Sub-Supplier or Material Source Change
☐ Change in Part Processing
☐ Parts Produced at Additional Location
☐ Other - please specify

Requested Submission Level (Check one)

☐ Level 1 – Warrant only, submitted to customer.
☐ Level 2 – Warrant with product samples and limited supporting data submitted to customer.
☐ Level 3 – Warrant with product samples and complete supporting data submitted to customer.
☐ Level 4 – Warrant and other requirements as defined by customer with the following:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

☐ Level 5 – Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location.

Submission Results

The results for ☐ dimensional measurements ☐ material and functional tests ☐ appearance criteria ☐ statistical process package.
These results meet all drawing and specification requirements: ☐ Yes ☐ No (If « NO » - Explanation Required)
Mold / Cavity / Production Process:

Declaration

I hereby affirm that the samples represented by this warrant are representative of our parts and have been made to the applicable Production Part Approval Requirements. I have noted any deviations from this declaration below.

Explanation / Comments:

Print Name: Title : Phone No.: FAX No.:

Supplier Authorized Signature: Date:

SUPPLIER COMMENTS:

For Customer USE Only

Part Warrant Disposition : ☐ Approved ☐ Rejected ☐ Other:

AF Gloenco Quality Signature: Date:

Part functional Approval : ☐ Approved ☐ Waived

AF Gloenco Engineering Signature: Date:

COPY - USE "LIVE" VERSION

Part Submission Requirements

	Part Retention/Submission Requirements					
	Requirement	Level 1	Level 2	Level 3	Level 4	Level 5
1	Design Records	R	S	S	*	R
2	Engineering Change Documents	R	S	S	*	R
3	Engineering Approval if Requried	R	S	S	*	R
4	Design FMEA	NR	NR	NR	*	NR
5	Process Flow Diagram (Mfg. Process Plan)	R	R	S	*	R
6	Process FMEA	NR	NR	NR	*	NR
7	Dimensional Results	R	S	S	*	R
8	Material Performance Test Results	R	S	S	*	R
9	Initial Process Study	NR	NR	S	*	R
10	Measurement Systems Analysis (Gage R&R)	NR	NR	S	*	R
11	Qualified Laboratory Documentation	NR	NR	NR	*	NR
12	Control Plan	R	R	S	*	R
13	Part Submission Warrant	S	S	S	S	R
14	Apperance Approval Report	NR	NR	NR	*	NR
15	Bulk Material Certifications	NR	NR	NR	*	NR
16	Sample Parts	R	S	S	*	R
17	Master Sample	NR	NR	NR	*	NR
18	Checking Aids	R	R	R	*	R
19	Record of Compliance with Gloenco Specific Reqmnts	R	R	S	*	R

S = Supplier Shall submit and retain a copy of the records at the suppliers location
R = The Supplier shall retain a copy at the ssupplier facility and make avaiable upon request
NR = Not required to be retained or submitted
* = Requirement to be specified by Gloenco as required on a Case by Case basis

APPENDIX G

Abbreviations

Abbreviations

Abbreviation	Description
C of C	Certificate of Conformance
SPAP	Supplier Part Approval Process
FMEA	Failure Modes Effects & Analysis
Cpk	Process Capability for Variation within Sub-Groups
Ppk	Process Variation for overall process both Within and Between Sub-Groups
KCC	Key Characteristics Control, may have other abbreviations such as CTQ, Prime Feature etc..
AIAG	Automotive Industry Action Group
PSW	Part Submission Warrant
RMA	Return Material Authorization
IQ	Incoming Quality
8D	Problem Solving methodology
Quality Alert	Method to notify personnel or Process/Product Issues
5-Why	Problem Solving Methodology