



SUPPLIER QUALITY MANUAL

SUPPLIER QUALITY MANUAL

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SUPPLIER QUALITY MANUAL

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REFERENCES

AIAG MANUALS

ADVANCED PRODUCT QUALITY PLANNING AND CONTROL PLAN

POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

PRODUCTION PART APPROVAL PROCESS

MEASUREMENT SYSTEM ANALYSIS

STATISTICAL PROCESS CONTROL

AIAG CQI ASSESSMENTS

CQI-9, SPECIAL PROCESS: HEAT TREAT SYSTEM ASSESSMENT

CQI-12, SPECIAL PROCESS: COATING SYSTEM ASSESSMENT

CQI-11, SPECIAL PROCESS: PLATING SYSTEM ASSESSMENT



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1.0 INTRODUCTION

1.1 PMF Policy

Progressive Metal Forming's (pmf) Quality Policy is "pmf will strive to always provide the best levels of customer satisfaction in quality, cost and delivery".

1.2 PMF Supplier Quality Manual Scope

This Manual applies to all QMS approved and pending QMS approved suppliers of Progressive Metal Forming. Compliance to the requirements within this manual, as well as Purchase Order general terms and conditions is mandatory for all external suppliers. It is the supplier's responsibility to check for updates to the Supplier Quality Manual annually. This can be accomplished by reviewing our website www.pmfdraw.com Supplier Tab.

2.0 SUPPLIER QUALITY GUIDELINES

2.1 Purpose

The purpose of this Manual is to outline the expectations for all parts and services supplied to PMF. These requirements should be considered as minimum only. It is the intent that all supplier parts and services will perform as intended in the customer applications with complete customer satisfaction for performance and durability.

2.2 TS 16949 / Third Party / PMF Audit

In order to stay competitive in today's global environment, PMF requires all product related suppliers to be certified to ISO9001: 2008 as a minimum. Gage calibration services must be ISO 17025 Accredited. Prospective suppliers are required to use only materials in their manufacturing process that satisfy current governmental and safety constraints on restricted, toxic and hazardous materials; as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture and sale.

Although it is not mandatory that suppliers are certified to ISO/TS16949, the goal is conformance to ISO/TS16949. It is the responsibility of the supplier to notify the Production Control/Purchasing Manager of PMF on any changes to their current certifications. All certification updates should be sent to rhuey@pmfdraw.com Potential new suppliers may be audited by PMF and/or



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required to submit a sample order for evaluation prior to being added to the QMS approved suppliers list.

PMF will recognize and accept only ISO 9001 Certificates issued by certification bodies which are accredited by members of the IAF (International Accreditation Forum) according the Multilateral Recognition Arrangement (MLA). All members are listed in www.iaf.nu

PMF will recognize and accept only ISO/TS16949 Certificates issued by certification bodies which are recognized by the IATF (International Automotive Task Force). All recognized certification bodies are listed at www.iatfglobaloversight.org/certBodies.aspx

PMF will recognize and accept only ISO/IEC 17025 Certificates issued by bodies which are accredited by members of the ILAC (International Laboratory Accreditation Cooperation) according the Multilateral Recognition Arrangement (MLA). All members are listed in www.ilac.org

2.3 General Motors BIQS Audit

Suppliers providing product and/or services to PMF related to GM finished product must complete items 1-13 at a minimum of the GM 1927-30 BIQS Audit annually.

Completed BIQS assessments should be sent electronically to rhuey@pmfdraw.com annually. Compliance to the BIQS requirements will be considered when evaluating supplier performance.

2.4 Right of Access

PMF and/or its Customers reserve the right to inspect supplier product and processes at the supplier's facility as required.



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2.5 Special Processes

2.5.1 Heat Treat System Assessment – AIAG CQI-9

PMF requires annual AIAG CQI-9 Heat Treat System Assessments for all heat treat suppliers. Each assessment shall include a review of the organization's systems using the Heat Treat System Assessment.

Completed Heat Treat System assessments should be sent electronically to rhuey@pmfdraw.com annually. Compliance to the CQI-9 requirements will be considered when evaluating supplier performance.

2.5.2 Coating System Assessment – AIAG CQI-12

PMF requires annual AIAG CQI-12 Coating System Assessments for all coating suppliers. Each assessment shall include a review of the organization's systems using the Coating System Assessment.

Completed Coating System assessments should be sent electronically to rhuey@pmfdraw.com annually. Compliance to the CQI-12 requirements will be considered when evaluating supplier performance.

2.5.3 Plating System Assessment – AIAG CQI-11

PMF requires annual AIAG CQI-11 Plating System Assessments for all plating suppliers. Each assessment shall include a review of the organization's systems using the Plating System Assessment.

Completed Plating System assessments should be sent electronically to rhuey@pmfdraw.com annually. Compliance to the CQI-12 requirements will be considered when evaluating supplier performance.



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3.0 PRE-PRODUCTION REQUIREMENTS

3.1 Advanced Product Quality Planning (APQP)

Information regarding the process can be reviewed in the AIAG Advanced Product Quality Planning and Control Plan manual.

Listed below are PMF's APQP requirements:

- PMF requires that the supplier establishes and implements an APQP process.
- The process should use the tools and techniques contained within the AIAG Advanced Product Quality Planning and Control Plan manual.
- APQP Status must be periodically updated by the supplier and forwarded to PMF. The frequency of updates depends on the complexity of the product and/or the timing associated with it.
- All product features identified on the part print as Special Product Characteristics need to have a capability index of 1.67 and conform to the specific clauses in the purchase orders or have an approved plan to improve the capability of the feature.
- Special attention must be given to items designated as Special Product Characteristics detailed in Section 4.1 of this document.
- Detailed APQP documentation needs to be maintained at the supplier's location. PMF may request to review evidence of completed APQP documentation and this evidence should be readily available.
- Whenever possible, error-proofing techniques should be used to prevent potential nonconformance.

3.2 Run @ Rate

Run @ Rate should be performed by the supplier prior to production. This activity should be performed prior to launch and as early in the process as possible, provided the design is frozen or stable. On certain critical products, PMF personnel and it's Customers may witness the Run @ Rate performed at the supplier plant.



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3.3 Production Part Approval Process (PPAP)

PPAP submissions must be performed and approved on all PMF production level components and services prior to the first shipment of production parts. The purpose of PPAP is to demonstrate that all requirements per AIAG-PPAP Manual are understood. Suppliers are **NOT** authorized to proceed with any changes to product(s) or processes unless authorized by PMF as indicated below:

- Supplier Change Request (SCR) has been submitted and approved. (See Appendix)
- The contract order has been modified to reflect a print change; if required.
- PPAP has been submitted and approved for all process changes.
- A PPAP run of at least 300 or an agreed quantity run of consecutive parts (unless otherwise specified in writing by PMF) needs to be produced from production level tools and process. All supplier locations that manufacture the part must receive individual PPAP approval.
- In order to obtain PPAP approval, the supplier is required to submit a PPAP part and documentation in accordance with the AIAG-PPAP guidelines. The default PPAP submission level is three (3) unless instructed otherwise by PMF.
- PPAP documentation with samples must be submitted for approval. The 300 that were run for the PPAP submission need to be maintained at the supplier location until the PPAP has been approved. Suppliers shall not ship production parts prior to PPAP approval unless there is written authorization by PMF Production Control/Purchasing Manager
- It is the responsibility of the supplier to submit the PPAP with sufficient time for PMF to process the PPAP submission through our appropriate channels prior to the supplier having to ship in production quantities.
- PPAP submission is not the time for suppliers to request print changes or tolerance relief. This should be accomplished during early stages of product/process development. Failure to comply with these requirements will result in PPAP rejections. This will have an impact on the supplier ratings and PMF preference for source selection on new business. Any specific PPAP related questions should be directed to the Production Control/Purchasing Manager at PMF.



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4.0 SPECIAL PRODUCT CHARACTERISTICS

- 4.1 *Special Product Characteristics* are features that have a significant impact to customer satisfaction. Reasonably anticipated variation of a Special Product characteristic could significantly affect a product's compliance or is likely to significantly affect a product's fit/function or safety/ compliance. Suppliers must prioritize their Continuous Improvement activities and variation reduction efforts on Special Product Characteristics to positively impact customer satisfaction.

There are two (2) types of Special Product Characteristics:

- Special characteristics that are related to parameters that affect customer satisfaction and for which quality planning actions must be addressed on a Control plan. They are also integrated into the FMEA and work instructions.
- Special characteristics that are related to parameters that severely affect the operation of the process or subsequent operations if they are outside of the specification tolerance. They are also integrated into the control plan, FMEA, and work instructions.

Some key aspects of Special Product Characteristics are summarized as follows:

- All Special Product Characteristics need to demonstrate a short-term capability (Ppk) of 1.67 and long-term (Cpk) of 1.33 or as outlined in the AIAG SPC Manuals, whichever is more stringent.
- Supplier needs to maintain SPC data on all Special Product Characteristics. This data shall be readily available upon PMF's request.
- Suppliers are expected to meet all component print characteristics irrespective of their designation. Evidence to support this may be requested at any time.



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5.0 MATERIALS PLANNING

5.0 Material Releases

- For Raw Material Suppliers PMF issues Purchase Orders which include the delivery due date(s).
- For Outside Services (OSP) PMF require all OSP Suppliers to honor the EAV, Lot Size & Standard turnaround times as the OSP Suppliers Original Quote.
- Where a RM or OSP Supplier identifies that a specific PMF delivery date cannot be met, then the supplier will immediately contact the PMF Purchasing agent (Buyer) for resolution agreement.

6.0 SUPPLIER PROCESS CHANGE / DEVIATION REQUEST

6.0 Supplier Process Change Request (SPCR)

- A SPCR form needs to be submitted for changes to print or a PPAP approved process that are permanent in nature. The supplier needs to consult with the Production Control/Purchasing Manager at PMF on specific questions that arise when completing the form. The change must be approved by PMF prior to part shipment.

6.1 Supplier Deviation Request (SDR)

6.1.1 A **SDR** form needs to be submitted for changes to print or a PPAP approved process that are temporary in nature. The supplier needs to consult with Production Control/Purchasing Manager at PMF on specific questions that arise when completing the form.

6.1.2 The SDR form needs to be accompanied by a corrective action report (CAR) that describes the deviation, root cause, permanent corrective action and prevention.

6.1.3 The deviation must be approved by PMF prior to part shipment.




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Supplier Process Change Request

Go to our website www.pmfdraw.com About Us Tab for the latest electronic revision.



Supplier Process Change Request (SPCR) Page 1 of 2

Supplier Provided Information													
Supplier Change Number: <input style="width: 80%;" type="text"/>	Date: <input style="width: 80%;" type="text"/>												
Supplier Name/Location: <input style="width: 95%;" type="text"/>													
Supplier Part Number: <input style="width: 95%;" type="text"/>													
PMF Part Number: <input style="width: 95%;" type="text"/>													
Description of Requested Process Change: <input style="width: 95%;" type="text"/>													
Purpose of Change: <input style="width: 95%;" type="text"/>													
Benefit of Change: <input style="width: 95%;" type="text"/>													
Change Schedule: (Required for sign off approval)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 20%;">Proposed Date:</th> </tr> </thead> <tbody> <tr> <td>Process FMEA:</td> <td style="text-align: center;"><input style="width: 80%;" type="text"/></td> </tr> <tr> <td>Control Plan:</td> <td style="text-align: center;"><input style="width: 80%;" type="text"/></td> </tr> <tr> <td>PPAP Submission:</td> <td style="text-align: center;"><input style="width: 80%;" type="text"/></td> </tr> <tr> <td>Implementation:</td> <td style="text-align: center;"><input style="width: 80%;" type="text"/></td> </tr> <tr> <td>Other:</td> <td style="text-align: center;"><input style="width: 80%;" type="text"/></td> </tr> </tbody> </table>		Proposed Date:	Process FMEA:	<input style="width: 80%;" type="text"/>	Control Plan:	<input style="width: 80%;" type="text"/>	PPAP Submission:	<input style="width: 80%;" type="text"/>	Implementation:	<input style="width: 80%;" type="text"/>	Other:	<input style="width: 80%;" type="text"/>
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PPAP Submission:	<input style="width: 80%;" type="text"/>												
Implementation:	<input style="width: 80%;" type="text"/>												
Other:	<input style="width: 80%;" type="text"/>												
Comments: <input style="width: 95%;" type="text"/>													
Proposed Evaluation Tests: <input style="width: 95%;" type="text"/>													

The SPCR Process has 2 stages of approval :
 Stage 1 Approval allows validation samples to be produced & tested.
 Stage 2 Approval allows the change to be implemented into Production.

 Supplier Process Change Requests to be submitted to PMF's Purchasing/Production Control Manager (Bob Huey) via email at rhuey@pmfdraw.com

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Supplier Deviation Request

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Supplier Deviation Request (SDR)	
Supplier Provided Information	
Supplier Deviation Number:	Date:
Supplier Name/Location:	
Supplier Part Number:	
PMF Part Number:	
Type of Deviation Requested:	DESIGN: PROCESS:
Description of Requested Deviation:	
Requested Duration of Deviation (end date or number of components):	
Supplier deviation requests to be submitted to PMF's Purchasing/Production Control Manager (Bob Huey) via email at rhuey@pmfdraw.com	
This deviation request is only approved when returned to the supplier by PMF with approvals documented at end of form.	
PMF to Complete	
<u>Validation Results Must Be Provided and Approved By PMF when requested</u>	
Validation Test & Document Requirements:	
Validation Results:	
Deviation Approval (PMF)	
Approvals:	Date:
Purchasing:	
Engineering:	
Production:	
Quality:	
President:	
PMF Deviation Number	
PMF Supplier to include the above deviation number on shipments of all affected product.	
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