Supplier Requirements Manual

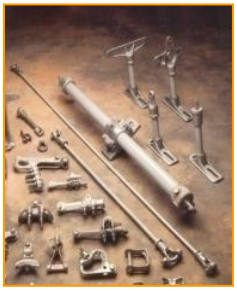
Last Revised: Jan. 7th, 2012

MacLean-Fogg
COMPONENT SOLUTIONS




MACLEAN POWER SYSTEMS





MACLEAN-FOGG
INTERNATIONAL



SUPPLIER REQUIREMENTS MANUAL

Rev E: Jan. 7, 2012

This Supplier Requirements Manual contains basic requirements for suppliers who provide products and services to the divisions of MacLean-Fogg Company. It is endorsed and fully supported by the management of MacLean-Fogg group of companies:

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1. Introduction

This manual provides an overview of standard operating procedures applicable to all suppliers providing material to MacLean-Fogg (MF). In conducting business with MF, you are acknowledging adherence to this manual. If you have any queries regarding any of these standard procedures, you should discuss them with your supplier quality contact at MF.

2. MacLean-Fogg Vision Policy

This Vision Policy applies to the manufacture, testing, and services that are provided to MF divisions. The management of MF is committed to attaining the quality goals and objectives stated in this manual. It is the ultimate responsibility of management to ensure that this vision is understood, implemented, and maintained at all levels of the organization.

The MF Vision Policy is as follows:

Build on our leadership position in industrial fastener and component manufacturing by being our customers' number one quality choice for engineering-driven, solution-based products that:

- Improve performance, and
- Lower costs.

Continue to offer customers a unique combination of metalworking, plastic, and rubber components technologies that:

- Utilize cross-functional expertise to meet or exceed customers' needs, and
- Continuously improve in customer service and delivery.

Encourage participation of all employees in job training and development to ensure that the MacLean-Fogg team achieves:

- Rigorous quality standards;
- Exemplary delivery performance;
- Product design excellence;
- Continuous process improvement and technologically advanced manufacturing skills; and
- Lowest product life costs.

3 General

The requirements contained within this manual supplement the requirements found in ISO 9001 or ISO/TS 16949 that applies to all suppliers who supply the MacLean-Fogg Co.

All MF suppliers shall conform to the latest issue of the Automotive Industry Action Group (AIAG) Quality System Requirements ISO/TS 16949 or ISO 9001.

3.1 Exceptions

Conformance with these requirements may only be waived by the MF facility purchase order, purchase contract, or in writing from Purchasing with concurrence of the supplier quality contact.

3.2 Required References

- At times MF facilities may require industrial or international references that are required. These specifications, procedures, etc. that may have to be purchased by the supplier from third party document sources.

3.3 MF Facility Customer Specific Requirements

- MF Suppliers shall be compliant to: all ISO/TS 16949 & ISO 9001 requirements in addition to those listed in this manual.
- Typically ISO 9001 registration is the minimum requirement to become an MF supplier.
- MF Materials Specification per drawing or purchase order.
- MF Heat Treat and Plating Specification per drawing or purchase order.
- Each MF facility may have plant specific requirements

4 Supplier/Customer Partnership Agreement

MF realizes that only by developing relationships with our suppliers we will be able to achieve the goal of exceeding the expectations of our internal and external customers. In an effort to establish a basis for these relationships, the following guidelines have been established for our suppliers.

4.1 Expectations of Suppliers

- Embrace the concept of never ending continual improvement and zero non-conformances in all aspects of the business. MF suppliers agree to take full responsibility for problems, if and when they occur. MF Suppliers: While we all strive for the goal of 0 PPM, when problems do occur that exceed this goal, it is understood the responsible party will take responsibility for all supply chain costs and take action to correct the root cause of the defined problem to prevent recurrence.
- Pass down this expectation of 0 PPM to the Suppliers Subcontractors.
- Ship product 100% on time.
- Proactively communicate with MF, especially regarding all changes including but not limited to schedules, services, sub-supplier/contractor, process and product changes.
- Work with and fully support MF in our customer relationships.
- Fully comply with the requirements set forth herein and other appropriate specifications.
- React with concern when these expectations are not met. Take immediate steps to resolve deficiencies to prevent their recurrence within time allocated by MF facility.
- Act in an open and ethical manner and treat MF with trust through all communications.
- Support cost reduction requests in line with our customers' requirements.
- Provide a safe work environment.
- Submit and obtain PPAP/Fair approval before producing production parts (Unless approved otherwise in writing).
- Maintain confidential information including prints, specifications, samples, etc.
- MF facilities recommend that suppliers set up an environmental management system based on ISO 14001

4.1.1 Subcontractor Development

The supplier is responsible for assuring continual improvement of materials, processes, suppliers, parts and services purchased for use. Procedures must be established and maintained. Supplier shall:

- Select Subcontractors (i.e. steel, plating, h/t, raw material, or any other primary or secondary processor, etc.) that are at least ISO 9001certified unless otherwise approved by MF division.
- Establish and maintain subcontractor surveillance.
- Establish and maintain an "Approved Supplier" list, including criteria for inclusion on or exclusion from this list.

- Require subcontractor to submit materials and test certificates when applicable.

4.2 Approved Suppliers

4.2.1 Initial & On-going Evaluation

MF evaluates and selects new (potential) suppliers on their ability to meet customer requirements. Each MF facility will create and maintain an Approved Supplier List. No production materials, services, etc. that have high impact quality (as determined by each division) of the product are purchased from any suppliers unless supplier is on the Approved Supplier List. Each MF Division determines the methods for assessment and how additions are made to the Approved Supplier List. These may include:

- ISO/TS 16949 and/or ISO 9001 third party registration.
- MF Supplier Self-Assessment Questionnaire.
- On-site initial Process Audit conducted by the supplier quality contact or MF/MFI representative. The audit formats may vary for domestic and international suppliers. (example is included with the SRM CD)
- MF will accept second party audit results (i.e. from Ford, General Motors, Chrysler, Nissan, VW).
- Grand-fathered based on past history

4.2.2.1 Supplier Quality System Requirements

Assessment requirements for High Quality Impact Suppliers:

- ISO 9001or ISO/TS 16949 registered suppliers may be audited at a frequency determined by Purchasing Department, supplier quality contact, and/or Quality Department. In some cases, suppliers who have successfully completed a third party audit may not be audited by MF. Suppliers are to be audited by supplier quality contact to specific process/product related requirements unless current certification is provided to MF. *(Note: A second party audit from Ford, General Motors, or DaimlerChrysler can be used. MF supplier quality representative must approve this.)*
- Specific requirement for Heat Treat, Plating, and Coating Suppliers: Suppliers are required to be, at minimum, in compliance with the latest AIAG Standard survey guidelines and format (CQI-9, CQI-11, CQI-12). All MF processors are subjected to audit once every two years by MF/MFI unless the supplier is able to provide second party (i.e. OEM or ISO/TS certified customer) audit results and compliance to latest AIAG CQI-9 or to applicable customer format. Each supplier is responsible to conduct

and update audits once a year. Results shall be forwarded to MF upon request.

Assessment requirements for Low or Non Quality Impact Supplies:

- Each MF division will have a method to monitor the quality of product and services of low impact suppliers.
- Suppliers may be required to complete self-assessment.
- MPS facilities will monitor and visit suppliers periodically based on performance.
- *NOTE: Low or Non-Quality suppliers are suppliers who cannot dramatically affect the quality of the product.*

4.2.2.2 Audit Results

At the end of an on-site audit, the MF auditor will brief supplier about audit findings. A completed audit report may be presented to supplier during closing meeting or may be forwarded via electronic media at later date. A corrective action plan is to be submitted within **21** days from the date of the audit report receipt. A supplier not achieving the minimum score will be developed toward that goal and will be re-evaluated if necessary. Audit results are taken seriously and could affect future and existing business.

4.2.2.3 Standard Supplier Chargeback Guidelines

Principle –

- The debit process does not inhibit containment and resolution of concerns.
- Protects MF from off-standard cost when a concern is not the responsibility of MF.
- The party deemed responsible for a concern deserves the opportunity to review the concern and accept or dispute responsibility.

Policy –

The following are prerequisites to a supplier debit:

- Supplier is formally notified of a concern either by phone, fax, E-mail, or U. S. Postal Service. In addition, samples or photos are forwarded along with the appropriate reject documents as needed.
- Supplier responsibility is determined by:
  - ❖ Supplier acceptance of concern responsibility, **or**
  - ❖ No written response by the supplier within 5 business days after receiving samples, **and/or**

- ❖ The MF MRB (Material Review Board), consisting representatives from but not limited to Purchasing, Quality, Production, Engineering, and Management departments, etc.

- The terms of the debits for nonconforming quality type reject notifications are:
  - ❖ Any and all MF customer charges incurred as a result of suppliers' nonconforming product.
  - ❖ Chargeback may include, but not limited to, sort at customer, sort at MF, sort via third party, fall off pieces, count discrepancies, scrap, customer chargeback, travel expenses, administration fee, shipping/handling fees (including premium shipment), etc.
  - ❖ A minimum $30.00 per man-hour charge for sort and rework time if performed at the MF division. This may be higher at some MF divisions.
  - ❖ Any and all line stoppages based on both man-hour and machine idle time. *(Note: Charges will be determined through MF accounting, production and/or customer charges.)*
  - ❖ Chargeback's are typically transacted as a debit against open invoices.

- The terms of the debits for receiving discrepancies (non-quality) are:

  (Note: A reject report may not be issued in the event of receiving discrepancies. However, the supplier will be notified via written communication.)

  - ❖ Packing slip discrepancies or no packing slip submitted with the shipment.
  - ❖ Bar code label error or label not supplied per MF requirements.
  - ❖ Incorrectly labeled containers – label vs. actual container content.
  - ❖ Material shipped in a manner other than FIFO.
  - ❖ Certificate of Compliance/Analysis missing with shipment when required.

Debits for charges incurred will be made in the currency specified on the Purchase Order and shall equal the above amounts in US currency.

If a supplier is required to provide replacement parts because of a supplier-responsible quality issue, the material is to be shipped at the supplier's expense. At the MF buyer's discretion, the material could be required to ship by airfreight.

Appeal Process: Supplier may appeal the debit/chargeback within 15 days in writing to the appropriate MF contact(s) detailing reason for the appeal and rationale to support it. At the discretion of the Plant Manager, Purchasing and Supplier Quality contact may also be involved in the investigation, assessment and final disposition of the appeal findings. The MF facility will respond to the supplier in writing within 30 days of the appeal.

4.3 Corrective Actions (SCAR – Supplier Corrective Action Report)

In the case of nonconforming products caused by the supplier, the supplier shall respond within the time frame defined in the table below unless otherwise mutually agreed upon. The supplier must have established a procedure and appropriate process to take all necessary corrective and preventive actions for all rejects or nonconforming products received by MF. The supplier shall use the systematic analysis method for corrective actions.

Time Table to SCAR Response

Instance Level	Implementation of Short-Term Containment Action	Selection of Permanent Corrective Action	C/A Closed
Standard (internal rejects)	≤ 5 business days	≤ 10 business days	≤ 20 business days
Priority (external rejects)	≤ 24 hours	≤ 5 business days	≤ 20 business days

The respective time period starts with the **Initial notification** to the supplier by MF that a problem exists. MF determines the instance level for the event. The supplier shall notify MF immediately upon receipt of the nonconforming samples and/or photos.

The instance level will be set to "Priority" in the case of potential customer line stoppage, shipment disruptions to customer, reliability risk, safety components, and/or customer rejects.

Independent of the instance level, the supplier will take all short-term actions at its plants, sub-supplier's plants, MF, or at MF customers as required. These actions must guarantee continuous delivery of conforming product.

The supplier shall keep MF informed on a regular basis about the progress in the failure analysis process. Extensions can be requested at this time if needed.

The supplier shall allow visits, audits and checks of all its plants and sub-supplier plants by representative appointed by MF. In addition, severe issues or repetitive problems may prompt MF to establish and hire a third party auditor at the supplier's location and supplier's expense.

MF expects supplier to certify product for an agreed period of time until corrective action is implemented and proven effective. Supplier shall identify all shipments to its certified status by affixing a marking to either the box or individual part as determined by the MF division. If not directed, the supplier should ad Green "X" to each carton

label showing that the product is certified for the specific non-conformance in question.

MF will request the supplier's authorization prior to the commencement of disposition (i.e., sort, rework, repairs) that will be at the supplier's expense and returned to the supplier. However, MF reserves the right to proceed without supplier's prior approval in order to protect customer shipment requirements, prevent production line shutdown, or lack of storage space. Return Material Authorization (RMA) number will be listed on SCAR and/or Nonconforming Material Report (NCMR).

When requested, the supplier shall provide on-site support personnel at MF and/or its customer's facilities.

5 Supplier Performance Rating System

Typically, Supplier's will be ranked in 2 categories (Delivery & Quality) at a minimum. Corrective action responses, cost reductions, etc. may be an additional item scored in the rating system.

5.1 Delivery – 100% On-Time Is Required

100% on-time delivery is an expected goal for all suppliers. Zero parts per million defective is an expected goal. PPM greater than zero may affect supplier monthly/quarterly rating. Specific delivery requirements will be relayed to the supplier by the MF division issuing the purchase order.

6 Quality Systems Requirements

6.1 General- Quality Systems

MPS Suppliers- ISO-9001 defines the fundamental quality system used to document a quality system and establish a good basis for improving processes. MPS expects suppliers to have a documented quality system and make efforts to achieve registration. Some suppliers are grand-fathered as approved suppliers, however this does not negate the desire for suppliers to improve and pursue a registered quality system.

MF Suppliers- ISO/TS 16949 defines the fundamental quality system expectations of Chrysler, Ford, General Motors and other subscribing companies for suppliers of production, service parts and materials to the Automotive Industry. The goal for ISO/TS 16949 is the development of a fundamental quality system that provides for continual improvement, emphasizing defect prevention, and reduction of variation and waste in the supply chain.

It is the expected goal of MF that all suppliers of production materials and services establish, document and implement effective quality systems based on ISO/TS 16949. Registration to ISO 9001 and/or ISO/TS 16949 is a requirement for all Approved Suppliers to MF. If registration is not held at the time of application to MF for approval status, a plan to achieve accreditation along with the time line through

completion must be submitted and approved by MF Purchasing Department prior to Production Part Approval Process (PPAP) approval and first production shipment.

6.2 Production Part Approval Process (PPAP) & First Article Inspection Report (FAIR)

All suppliers of raw materials and components that are used in the manufacturing of MF products are required to submit PPAP/FAIR submission and receive approval prior to beginning production shipments. The approval process varies depending on the commodity and MF location. See addendums in the back of the book for specific MF divisional requirements.

MPS Suppliers- When a "FAIR submittal" is requested on the Purchase Order, the supplier needs to send 5 samples of parts representing a production run with any required certifications. The FAIR sample is to be shipped to the MPS location prior to a production shipment. The supplier is also to perform a layout of the part, recording all of the dimensions on the part drawing and verifying their compliance to the drawing. The samples, certification and layout will be reviewed by the MPS location Quality and Engineering departments and a FAIR report will be made defining if we accept or reject the shipment. Suppliers must be prepared to perform a tooling design review with the MPS Engineering department. Once a FAIR is accepted the supplier will then be able to ship in the order. If a shipment is sent in prior to acceptance of a FAIR, the shipment will be put on hold until the FAIR process is complete and the supplier will be responsible for the parts that are not accepted.

MF Suppliers- Suppliers shall comply with the ISO/TS 16949 section referring to Product Approval Process and the latest edition of the *Production Part Approval Process Reference Manual* published by AIAG. MF Engineering, Product development and/or Quality Engineering may modify these requirements. **The default level for all submissions is Level – 3 along with 300 production samples (unless otherwise noted by the issuing MF division.).** ***Note: For an overseas supplier outside the U.S, refer to addendum in the back for MacLean-Fogg International.*** Any specific item(s) that does not meet specification must be clearly defined on PSW with an action plan.

It is the supplier's responsibility to insure that sample submission dates are achieved and that samples submitted meet all specified requirements. Part approval is a vital part of the customer-supplier relationship and should not be jeopardized through poor communication. Any anticipated changes or delays in the agreed upon sample submission date must be communicated in writing to the assigned buyer and/or supplier quality contact as soon as any potential problem is perceived by the supplier.

When required, sample submission request will appear on the purchase order. Purchase order specifies PPAP Level documentation along with sample quantity to be submitted. In all cases, a signed PSW (Part Submission Warrant) must be submitted for approval.

Note: All supplier documentation must be less than one year old (with the exception of the Design Record) at the time of submission to the end user.

6.3 Changes in Materials, Equipment, Processes and Location

Supplier must not alter their process and/or change material once PPAP/FAIR approval is granted. Any process changes must be approved via re-PPAP/FAIR once MF is formally notified in writing. Verbal authorization will not be accepted. Supplier must not have more than one active sub-supplier for any particular process, raw material and/or components at the same time (Unless approved in writing by MF). Supplier is only allowed to use sub-suppliers/contractors that are approved via initial PPAP/FAIR submission and must not switch back and forth unless otherwise authorized/approved by MF/MFI personnel via additional PPAPs.

Secondary processors such as heat treat and plating suppliers are not excluded from above requirements. Processors shall report any process changes to MF. Process improvements affecting final product quality shall be communicated and approved via PPAP submissions.

6.4 MF Suppliers-Annual Validation of PPAP & Secondary Processes

It is required that suppliers update and retain the Annual PPAP Level-3 documents per ISO/TS 16949 requirements. Secondary processors such as heat treat and plating suppliers are required to validate their processes annually using the CQI-9, CQI-11, & CQI-12 audit criteria. Records shall be kept for MF verification or supplier shall forward to MF representative within 7 working days upon request is made by any MF divisions. All documents must not be older than 1 year.

6.5 Purchasing

6.5.1 Purchase Order

The supplier must comply with all requirements as stated in the purchase order contract documents. Any deviations to purchase orders must be approved in writing by MF Materials Department and/or Purchasing Department. Suppliers should confirm the P.O. has been received with 24 hours if possible. MF reserves the right to make changes to purchase orders 75 days prior to the shipment of product without incurring cost related to tooling, parts produced, etc.

6.5.2 Releases

Initial purchase orders, blanket contracts, and material releases are issued by MF Materials Department and/or Purchasing Department. Supplier is responsible to communicate purchase order and shipment due date related concerns to MF buyer in writing so that proper revisions can be made to purchase order, if applicable.

All excess or premium freight and expedite cost, both from the supplier to MF and from MF to its customer due to supplier tardiness, will be assessed by the appropriate MF division and possible charges incurred. In line with our relationship strategy, the

burden of cut-in or break-in charges will be evaluated by the MF Materials Department and/or Purchasing Department.

6.6 Control of Customer Supplied Product

In addition to the requirements of ISO/TS 16949, suppliers shall comply with the following:

6.7 Secondary Processors

Whenever the supplier receives materials for processing or work in-process for further processing, the supplier must control the verification, storage, and maintenance of those materials. Any loss or wastage not covered by scrap allowances on the purchase order is the responsibility of the supplier. Any product that arrives at the supplier's premises unsuitable for use must be recorded and reported promptly to MF Materials Manager and/or Purchasing Manager.

The purchase order and shop order are the controlling documents for all MF materials while at supplier's facilities and until returned. All inquiries and references should include the Purchase Order, Lot and Shop Order numbers along with a Part Number.

6.8 Product Identification & Traceability

Suppliers must maintain lot traceability of all product shipments including traceability back to original steel heats, supplier processes and component lots.

6.9 Final Inspection & Testing

The supplier shall maintain a system to assure that outgoing material conforms to the applicable requirements prior to packaging/shipment.

Note: The supplier shall provide a certificate of compliance/analysis, as required by MF, each time a specified product or service is delivered.

To ensure continuing conformance to product drawings, a complete annual validation of layout is required.

An adequate system of lot control must be in place to assure problems can be traced to all work in process or supplier sources. Each shipment shall contain the lot control or date codes, and required quality data, if applicable.

6.10 Measurement & Test Equipment Control

Gages supplied by MF must be kept in calibration and tagged as such. Gages not calibrated by MF must become part of the suppliers calibration system.

6.11 Packaging & Labeling

MF requires that packaging design protects components adequately against surface and/or structural damage. MF must receive material and components in the same

production quality condition as it left the supplier's facility, regardless of the method of transportation. Each pack design is to consider the material handling and storage environments it will encounter during transportation and use. NOTE: Refer to the addendum for specific divisional specifications.

6.12 Bulk Processing

Product must never be shipped with the contents of the open bin to be more than one (1) inch from the top edge. All packaging changes, for any and all materials in-bound to MF, must be submitted to, and approved by the MF Division in writing.

6.13 Labeling

All labeling must conform to the Carton and Pallet format shown on the P.O., drawing, or addendums in this section unless otherwise agreed upon by a specific MF division in writing. At minimum at least one label must be placed on each carton/container that is clearly identifiable in packaged condition. However, two labels are preferred on the two adjacent sides of containers to facilitate readings. In addition, all material identification labels must remain intact from the original point of manufacture, through to MF's receipt and storage at the affected receiving inspection.

Suppliers are responsible for all labeling issues related to packaging. At minimum, a carton label must be on every carton and a master label on every pallet.

6.13.1 Packaging Design

Suppliers are responsible for the design of their packaging unless specified by the MF Division. Suppliers are to assume all responsibilities for design, testing and performance of their packaging.

Following items to be considered during packaging design:

- Weight of a manually handled individual carton is not to exceed 32 pounds or weight mutually agreed upon with the MF Division.
- Freight cost & Floor space
- Packaging tonnage to be recyclable
- Pack designs should follow established "best practice" designs
- Accessibility by a tow motor or fork lift

Corrugated material used in shipping containers must have minimum test strength to adequately withstand the test of warehousing and transportation or as defined by the appropriate MF division.

6.13.2 Pallet Size & Construction

During the quoting and/or contract review process, MF divisions may require a specific pallet size. In addition, pallets must be heat treated or fumigated when shipping overseas.

6.14 Shipping & Routing Instructions

The key MF contact for shipping and routing instructions is the buyer at the MF Division. Suppliers with terms FOB supplier plant will use MF designated carriers for all modes of transportation. Freight terms may vary; refer to the addendum for MF Division specific requirements.

Suppliers are responsible for all excess freight charges incurred due to noncompliance with routing instructions as specified on the purchase order or subsequent routing instructions.

6.14.1 Shipper/Bill of Lading

The following is critical data on the shipper/bill of lading:

- Supplier's name
- Shipping address
- Shipping date
- Shipper number/BOL #
- Carrier
- Ship to address
- Shipping terms (FOB, CIF, etc.)
- Purchase order number/ Shop order number
- Line item or release number
- MF part number and description
- Quantity shipped & unit of measure
- Total number of containers
- Proper freight classification
- Weight – net, tare, gross
- Lot or batch numbers (i.e. Lot traceability)

Suppliers are required to note the line item or release numbers on all shipping paperwork. Note: For overseas suppliers, an original set of export documentation should be sent with the shipment, to the MF division, and to the MF customer broker direct. Prior to shipping, the overseas supplier should send an advanced shipping notification to the MF division.

6.14.2 Customs & Supplier Content Reporting

Suppliers within a foreign country must provide all necessary export documents to the MF buyer or its customs broker for use in customs clearance of goods. All charges

resulting from incorrect or inadequate customs documentation will be charged back to the supplier.

6.14.3 Safety & Hazardous Materials

Suppliers shipping any item considered a "hazardous product" or a "controlled product/substance" under the *Hazardous Products Act* will provide necessary documents to allow MF to comply with the act including, but not limited to, providing MF with Material Safety Data Sheet (MSDS) and labeling products as prescribed by the act.

6.15 Inspection at Supplier's Premises

MF reserves the right to perform source inspection of any material and/or processes at suppliers and their subcontractors.

MF reserves the right to perform periodic audits of suppliers and their sub-contractors process, methods, quality plan, inspection procedures, testing methods/operations, and quality records. Subcontractors will be notified in advance of any on-site audits. The exception to this would be in the case of ongoing quality issue or the result of poor quality received at our customer location due to supplier's process methods. With this type of situation, a product or process audit may be scheduled at any time with minimal notice being given to the supplier.

7 IQ (Incoming Quality) Meeting

Suppliers may be required to attend an IQ (Incoming Quality) meeting at MF. The supplier will be invited due to a variety of reasons including, but not limited to:

- Poor quarterly quality and delivery performance
- Ongoing or repeat quality concerns consecutive months above the PPM goal
- Failure to follow set policies/procedures
- Inadequate/poor corrective action responses

It is required that supplier's top management along with individuals who are familiar with the concern and corrective action attend. The supplier shall present the problem in a corrective action format and focus on root cause and prevention actions.

8 Request for Quote

MF uses a quotation form designed to include all required supplier information. If the supplier chooses not to use the MF form, all required information must be present on the supplier quote response. All known material specifications and performance requirements must be itemized. Any potential changes or additions must be indicated.

Supplier assumes responsibility for all testing and certification required under known material and performance specifications. Supplier assumes responsibilities for building all appropriate measuring gages and test fixtures, unless agreed differently with the MF Division. The quoted price must include any and all PPAP/FAIR submissions, required certifications and re-certification, tool maintenance and tool replacement for the life of the job. Quotes shall be returned to MF Division in a timely manner with a goal being 5 business days.

9 Continual Improvement

Supplier shall develop an annual continual improvement plan, approved by upper management, which establishes improvement goals, implementation dates and responsible personnel.

Suppliers shall have a system to identify, record and monitor costs on a regular basis for all products manufactured and/or purchased as well as for all services provided and/or purchased. This system shall include, but not limited to:

- Manufacturing costs
- Quality costs
- Delivery costs
- Purchasing costs
- Lead-time reduction
- Safety Stock/Supplier Location
- Overhead costs

The costs shall be reported using a suitable base, such as cost per unit produced or cost as a percentage of total sales, etc.

Suppliers are encouraged to reduce costs annually to help offset all economic and OEM reduction programs so together we can remain a global competitive partner. MF will work proactively with its supply base to support cost reduction implementation, but expects suppliers to take the initiative in establishing projects that will generate savings. Suppliers will be expected to participate in formal cost reduction reviews as required by MF upper management.

10 Additional requirements

10.1 Raw Material Certifications

The supplier shall receive and evaluate raw material certifications **in English** showing actual test results for materials used prior to use of each material. If material blending is performed by subcontractor, the certifications for all virgin materials shall be maintained on file by the supplier for review. Where there is a customer approved subcontractor list, the supplier must provide documentation of compliance.

11 Distribution and Revision Control

11.1 General

This is a controlled document and maintained in the MF website www.MacLean-fogg.com. MF divisions maintain a list of suppliers who have received a copy of these documents (via CD) and issues revisions to suppliers when applicable.

11.2 Distribution

This manual is written under the direction of MF Purchasing, Quality and Materials Departments and is distributed electronically by individual MF divisions to their suppliers or via CD with a letter of acknowledgement to be signed and returned to supplier quality contact or Purchasing Department.

Supplier may make uncontrolled copies for internal use or to distribute to subcontractors as a reference only. However, uncontrolled copies will not be updated by MF.

11.3 Revision

Supplier Requirements Manual will be reviewed and if needed, revised when necessary under the direction of MF Purchasing and Quality Departments. After revision, MF shall update its website. Distribution of revised manual shall follow Section 11.2 above. It is recommended that each supplier periodically access the MF website to view current and/or updated sections.

12.0 Addendum A- MacLean Fasteners

MPS and Mundelein Division Specific: For all ocean shipments from overseas vendors, shipments must be made by the exact due date in the PO. All required documents must be sent within 3 business days of the closing date to the MF buyer. Failure to deliver the parts to the broker/carrier by the due date or failure to provide documents to the buyer within 3 business days will result in a shipment being considered late.

Suppliers are not allowed to ship quantities over or under 10% of the original order quantity without written authorization from the appropriate MF Materials Department and/or Purchasing Department. If the buying MF division determines airfreight is necessary, the freight is to be shipped DDU (delivered duty unpaid) via the buyer-designated carrier.

12.1 Addendum B- MacLean Plastics & Composites Group

Regrind (Plastic Parts only) -Unless otherwise specified, regrind shall not exceed **25%.** A policy/procedure outlining control of regrind shall be established and included in the Supplier's Quality Manual. Plastic parts must meet MF manufacturing materials specification. Documentation of all blending, by lot and regrind material history, shall be kept on file for MF supplier quality contact review.

All samples prepared for PPAP shall be molded using the highest percentage of regrind allowed per specification in order to ensure that all physical properties shall be met

under the most adverse conditions. The level of regrind shall be stated on PPAP documentation and material certificate.

12.2 Addendum C- MacLean-Fogg International-

Applicable to Overseas Suppliers: Quotations shall include a list of all sub suppliers for raw material as well as secondary processors such as heat treat, plating, assembly, etc. Quotations for MF should include latest AIAG CQI – 9 Heat Treat audit report (applicable to h/t processor only), CQI-11 and CQI-12, copies of latest ISO/TS registrations, NVLAP/A2LA or Lab scope, etc. Unless otherwise approved by MFI, the supplier must quote one material source and one sub contractor (processor) per part/process.
All supplier quotations shall include a single perishable tooling/ PPAP charge in US$. It shall be understood that with this charge, the supplier agrees that the tooling/PPAP will include all perishable tooling design and build costs, sampling and PPAP cost. The supplier will retain the PPAP documentation and Master Samples as required by the latest PPAP requirements manual.

Notes: PPAP samples will consist of a duplicate set of Master Samples. Additional sample quantities can be ordered at the quoted piece price and terms. Should the EAU listed on this quotation not be achieved at an ongoing running rate within one-calendar year from the PPAP approval date to the supplier, the buying MF division will be invoiced for the Tooling/PPAP charge listed above prorated for the quantity achieved and the supplier paid net 30 days.
In the case of no use, tooling will be preserved/stored for a period of two-additional-calendar years in such a way that should future orders be required, the tooling can be used again with no additional cost to MF. If this additional period expires with no use, the supplier will request authorization to scrap the tooling or to ship it collect to MF. Scrapping of any tooling will only occur after receipt of written MF divisional approval.

Control Plan Standard:

1. MacLean-Fogg depends on key supply partners to provide their expertise to all product control plans that insure all product specifications are maintained to a goal of 0 defects. While it is ultimately the supplier's responsibility to meet all product specifications, the requirements within are those minimum requirements that MacLean-Fogg would expect to see in a product control plan (as applicable to the specific drawing requirements e.g. plain finish = not applicable to the plating requirements).
2. For any part of the supplier’s process that includes purchased material or subcontracting, MacLean-Fogg would also expect to see those items addressed in the Receiving section of the supplier’s product control plan showing the inspections that take place and what the sub-supplier lists in their control

plan. The nature and extent of these checks should be dependent on their listing in the PFMEA and, for example, regardless of current supplier inspection capabilities.

3. For any supplier's certificate or test report that is related to the purchased material or subcontracting, MacLean-Fogg would also expect to see the lab accreditation and lab scope from the material supplier or the subcontractor.

12.3 Addendum D- MacLean ESNA

AS9100 Supplier Requirements (Issue Date: 103111)

General: As a supplier to Maclean – ESNA at Pocahontas AR, it is understood that your organization as a supplier agrees to meet the following Maclean – ESNA stipulations, and those noted in AS9100 requirements. Specifically whenever Maclean – ESNA requires you the supplier to refer to the MF Supplier Requirements Manual (available at http://www.mf.com) and/ or when the purchase order denotes special aerospace customer requirements and/or similar aerospace AS9100 reference (flow down requirement).

These requirements are therefore, to be considered as terms and conditions to all aerospace related purchases by Maclean – ESNA at Pocahontas AR:

1. Maclean – ESNA is to be contacted (by the supplier) in the event of nonconforming product/material. Note: Arrangements for the approval of supplier nonconforming product/material must be as directed by Maclean - ESNA's designated Engineering Manager, or the Quality Manager or designee.
2. Furthermore it is understood that the supplier is required to notify Maclean - ESNA of any changes to a product and/or processes prior to changes and to obtain approval from the authorized Maclean – ESNA Engineering Manager or designee.
3. Maclean - ESNA, their customers, and regulatory authorities retain the right of access to all supplier facilities involved with the Maclean – ESNA aerospace purchase order and to any and all applicable records.
4. The AS9100 standard requires that all applicable customer/regulatory/AS9100 requirements for the supplier to "flow-down" to sub-tier suppliers (includes requirements in the suppliers purchasing documents and key characteristics where required). However, Maclean - ESNA does not allow its aerospace suppliers to subcontract any product or process to a sub-tier supplier without the prior written consent of Maclean ESNA.
5. When deemed necessary, Maclean - ESNA may inspect or audit the supplier's facility.

6. Furthermore, it is the responsibility of the supplier to ensure products are inspected to ensure they meet requirements (dimensions, etc.) and that the results are recorded (as appropriate). All special processes (anodizing, heat treat etc.) will require a Certificate of Conformity where the compliance cannot be verified by inspections.
7. To prevent the purchase of counterfeit or suspect/unapproved products and to ensure product identification and traceability (and for other reasons), Maclean – ESNA includes the requirement for: Material Certificates, Certificates of Conformity, and/or other supporting documentation from its suppliers as is required by Maclean - ESNA, its customers and/or regulatory agencies. Any additional requirements are specified on the Maclean – ESNA Purchase Order.