

SUPPLIER QUALITY REQUIREMENTS

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Ver	Version Control	Date	E.C.N.
01	Initial version	29/06/02	
02	Inclusion of components expiration and additional information in supply	19/07/02	
03	Logo and general conditions update	27/02/07	N/A
04	Adaptation to AS 9100 standard	28/05/09	N/A
05	Include mention to Specialty Metals	15-07-09	N/A
06	Include QNOTES Raytheon	15-10-09	N/A
07	Include mention to Tin Whisker	13-01-10	N/A
08	New logo. Include PECAL 2120	10-02-11	N/A
09	General revision	09-07-15	N/A
10	Change to MADES	26-11-15	N/A
11	Update to new versions of AS9100, PECAL 2110 and IATF 16949. Added paragraph 22	14-03-18	N/A
12	Revision of paragraph 22, added paragraph 23	14-03-19	N/A

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COMMITMENT TO EXCELLENCE

Málaga Aerospace, Defense and Electronics Systems, S.A. (MADES) has a commitment to **Excellence**, exceeding our customers' expectations. We shall provide products to our customers that are competitive in cost, with outstanding quality and superb service.

What does MADES expect from our suppliers?

In direct support of MADES's commitment to excellence, it is expected that our suppliers work towards exceeding our expectations and requirements. This shall be demonstrated through zero incidents, zero disruptions, providing products with zero defects, 100% delivery on time & and providing adequate response to claims.

Suppliers shall have a philosophy of total quality commitment, with subsequent action plans that drive to exceed MADES requirements.

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1. Quality System Requirements

Unless otherwise specified, suppliers shall have their Quality System certified with ISO 9001 by a recognized third party certification body. Current certificate shall be available for review.

Whenever requested, the supplier shall comply with standards AS 9100 and AQAP 2110. Current certificate shall be available for review.

Automotive component suppliers shall perform quality management system development with the goal of conformity with the requirements of IATF 16949. Certification should be performed according to IATF Certification Scheme. Current certificate shall be available for review.

2. Advanced Product Planning

Suppliers of non-standard parts (parts in accordance with drawings or specifications) are required to perform documented Advanced Product Planning activities on all new and major re-designs.

Supplier will request MADES all documentation needed that it is not available.

Minimum MADES requirements at every stage are:

Prior to First Shipment

- Supplier Assessment (for new suppliers).
- If required, provide and maintain a Process Control Plan
- Comply with MADES requirements for the First Production Parts Approval prior to shipment (Section 3)
- In case of products under AS 9100 and/or AQAP 2120 standards, it is required compliance with the First Article Inspection (Section 4)

On Production Stage

- Drawing and Engineering change monitoring.
- Respond to MADES claims according to Section 7.
- Notify any deviation over specification (Concessions / deviations) according to section 8.

3. First Production Part Approval

This section applies to non-standard parts (under drawing/specification). The purpose of this approval is to determine if all drawings/specification requirements are properly understood by the supplier and if the processes will be able to comply with those requirements during production stage, at the quoted production rate.

This procedure applies whenever one or more of the following conditions occur:

- First production.
- A significant change is made to the manufacturing process.
- The part has been out of production for more than 2 years.

All samples are to be manufactured using production tooling and processes. If a tooling contains duplicate fixtures or multiple cavities, (dimensionally inspected) from each shall be submitted. Each sample submitted shall be packaged and identified separately and shall include all MADES required documentation.

No product will be shipped until samples are approved by MADES in writing form. Once the Approval has been granted, any deviation from the original master sample is unacceptable. It will be the supplier's responsibility to submit to MADES for approval, any proposed change, or new units for the Approval.

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4. First Article Inspection (FAI) (AS 9100, AQAP 2110)

If required in the PO, the first parts will be approved by a FAI report. The forms to be used will be as per AS 9102 unless otherwise agreed.

No product will be shipped until FAI is approved by MADES in writing form. Once the Approval has been granted, any deviation from the original FAI is unacceptable.

A new FAI will be required whenever one or more of the following conditions occur:

- A significant change is made to the manufacturing process
- More than 2 years since last production batch
- New tooling is developed
- Modifications are made to existing tooling
- A new sub-supplier or outside process is introduced
- Production moved to a new manufacturing location

5. Drawing and Engineering Change Control

It is the supplier's responsibility to procure material that meets all engineering drawings and specifications supplied by either MADES or our customer. MADES will send new drawings and proposed changes to the supplier.

In order to maintain these quality requirements, the supplier shall establish and maintain a system to assure that only the latest applicable drawings and specifications are used.

Any changes including but not limited to process, design, component, packaging, component suppliers, or facilities, shall be communicated to and receive written authorization from MADES prior to implementation.

6. Outsourced Processes

If supplier has outsourced processes, it shall be communicated to MADES, and get the approval if required.

All documents and requirements included in the PO, shall be flowed down to those sub-suppliers, including this document EC000002. That flowdown, shall include the control of the key characteristics, if applicable.

7. Corrective Action Procedure

Suppliers will have a corrective action procedure in place that responds to complaints received from MADES. Supplier shall identify root cause using problem-solving tools such as Fishbone, 5 why's, flowcharting..., and implement permanent corrections using Mistake Proofing methodologies in order to protect MADES or MADES's customers from receiving any defective material. Supplier shall track corrective action effectiveness.

If the non-conformity has been generated by a sub-tier supplier, the supplier shall issue and request the corrective action report as per described above. Supplier should have a process to track cycle time or aging of sub-tier supplier escape investigations. At the same time, supplier should have a management elevation process for those investigations not meeting the required response time or form.

When MADES has found nonconforming material, and supplier responsibility has been verified through proper analysis, MADES will issue a Problem Report and Resolution form (PRR) to document pertinent problem information.

Supplier will be required to submit a corrective action report as mentioned above. The initial response shall be due in 5 working days and it will include initial supplier actions to identify, contain, and isolate the problem. The final response with verified root cause, effective corrective actions, disposition of nonconforming material, and delivery dates of conforming product, shall be due within 20 working days.

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Consecutive PRR's of the same problem or lack of response to a PRR is not acceptable. Suppliers should work towards reducing their number of PRR's over time.

Supplier has financial responsibilities for nonconforming material and their effects, which may include warranty issues and cost recovering for sorting, re-work, scrap, premium transportation and other types of charges.

8. Request for Temporary Deviation

It may happen that material that does not conform to all specifications, may be used if the nature of the nonconformity will not impact the fit, function or form of the final product. Supplier may submit a request for approval to use such material. In all instances, a written corrective action plan shall be prepared and attached to the request, describing steps taken to prevent a recurrence of the deviated condition.

If the deviation/concession is approved, material and shipping documents shall be identified with the deviation/concession number.

Supplier is expected to pay any cost incurred by MADES due to special processing, handling, or customer penalties caused by the use of material covered by any deviation/concession.

9. Right of access

Supplier shall allow MADES, their customers and regulatory authorities the access to all the facilities involved in the purchase order (including sub-tier suppliers), and to all the applicable records, including those of the Quality System.

10. Packaging and Labelling Instructions

The supplier's packaging system shall ensure part integrity during transportation and subsequent handling and storage until destination. The overall responsibility for the design of the packaging system and the quality of the parts remains with the supplier.

If the parts are shipped by a distributor, they shall keep the original manufacturer label.

11. Component manufacturing Data Code

- For electronic parts, manufacturing data code shall not exceed two (2) years.
- For printed circuit boards, manufacturing data code will be in compliance with the IPC-7351A standard, Table 3-25. Boards with an expiry date lower than 75% of self-life will not be accepted.
- Perishable material with an expiry date lower than 75% of self-life will not be accepted.

12. CoC (Certificate of Conformance)

All parts under military standard, or custom parts if required in the PO, shall be accompanied by a manufacturer CoC.

This CoC shall arrive with the part, and available for incoming inspection.

13. Component part number with –LF suffix

All components with suffix –LF included in the part number, shall comply with the European Directive 2002/9E/EC (RoHS).

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14. Control of records

Suppliers of non-standard parts (parts in accordance with drawings or specifications), shall retain for a minimum period of time of 10 years since shipment of the last part, (unless otherwise specified in the purchase order), all records generated in manufacturing.

Those records are: training, validation and maintenance of tooling, FAI, calibration/verification of measuring devices, inspection results in manufacturing, tests result, risk analysis, CoC of raw material.

Records shall not be modified.

As stated in section 9, those records shall be available to MADES, MADES's customers and the statutory authorities, whenever needed.

If bussinees between MADES and supplier finishes, supplier shall retain all records, until disposition is agreed with MADES. Supplier shall return to MADES or destroy (as agreed) all drawings or specifications delivered and provide confirmation of destruction to Quality representative.

15. Preference for Domestic Specialty Metals

If specified in the purchase order, suppliers shall comply with federal laws and regulations (DFARS 252.225-7014) of the Department of Defense of the United States (DoD), regarding acquisition of specialty metals.

Specialty Metals include some stainless steels and other metal alloys. Barring exceptions, specialty metals shall have been melted or produced in the United States or its outlying areas.

More information can be consulted in the following web page:

http://www.raytheon.com/connections/supplier/metals/rtnwcm/groups/public/documents/content/rtn_connect_metals_r080211_pdf.pdf

16. Raytheon QNotes

Some purchase orders may include Raytheon Quality Notes (Qnotes), in these cases suppliers shall fulfill the requirements of those notes. They can be consulted in the following page web:

<http://qnotes.raytheon.com/>

If a discrepancy exists between the information of a "Qnote" and any section of this document, the requirements of the Qnote will prevail.

17. AQAP 2110

For those products with AQAP 2110 requirement, MADES will insert the following note in all purchasing documents:

"All requirements of this contract may be subject to Government Quality Assurance. You will be notified of any Government Quality Assurance activity to be performed."

This note shall be flowed down to suppliers.

18. Training

All suppliers of non-standard parts (parts in accordance with drawings or specifications) shall determine the necessary competence for personnel performing the work, provide training to achieve that competence, and maintain appropriate records of education, training, skills and experience, as per section 14 of this procedure.

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19. Identification and traceability

Suppliers of non-standard parts (parts in accordance with drawings or specifications) shall implement shelf life control of products/material until they are used in production. Products beyond their expiry date should be considered as non-conform and removed from production. Traceability for parts and raw materials, shall include the ability to trace them to the original manufacturer. Supplier shall maintain a copy of the manufacturer certificate of conformity.

20. Foreign Objects Detection and Prevention (FOD)

Supplier shall maintain an appropriate program for the prevention, detection and removal of foreign objects during all production processes. (Example: design, manufacturing, assembly, shipment, etc).

Work stations shall be clean and appropriate to the process performed. All manufacturing tooling shall be controlled.

Standard NAS 412 shall be used for reference

21. Counterfeit prevention

Supplier shall maintain an appropriate program for the prevention of counterfeit.

Special attention should be placed to obsolete components.

Standard SAE AS553 shall be used for reference

22. Supplier monitoring

In a monthly basis, MADES will evaluate supplier performance, in order to ensure quality and delivery on time of delivered pieces. MADES will take the appropriate actions, if the result is not as agreed in the purchase order. At the same time, MADES will also send a report every four months to the suppliers deemed appropriate in each period.

23. Raising awareness

Supplier shall ensure that their employees are aware of:

- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

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