



Supplier Quality Manual

Revision History

Rev.	Date	Description of Change
1	9/23/16	New Release
2	6/7/17	<p>Added to 9.2: Notify G&W immediately of any potential non-conforming product or any similar product produced by the same or similar process which may have gone undetected or produced non-conforming product.</p> <p>Added to 11.6: (Q6a) CARC painted parts are required to include as addendum to part marking:</p> <ul style="list-style-type: none"> ▪ The date parts are painted ▪ The painter's initials
3	11/21/18	<p>Added to 1.0 Part Nomenclature</p> <p>The G&W part nomenclature is as follows: Part Suffix "- " Rev. The Part Number and Revision Level for that part number are separated by a "- " on all system generated paperwork (i.e. Purchase Orders, OSP shippers, etc.) Examples are as follows:</p> <p>ABC – A (Part ABC Rev A)</p> <p>ABC - - (Part ABC Rev -)</p> <p>ABC - (Part ABC Rev "blank")</p>



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1.0 Introduction / Purpose / Part Nomenclature

This manual is applicable to all PO, Contracts, Subcontracts, and Statements of Work in which it is referenced. This manual defines the requirements and expectations of all Suppliers and sub suppliers who are providing material and/or services to G & W Products.

The G&W part nomenclature is as follows: Part Suffix “-“ Rev. The Part Number and Revision Level for that part number are separated by a “-“ on all system generated paperwork (i.e. Purchase Orders, OSP shippers, etc.) Examples are as follows:

ABC – A (Part ABC Rev A)

ABC - - (Part ABC Rev -)

ABC - (Part ABC Rev “blank”)

2.0 G & W Quality Policy

We are a world-class team dedicated to supplying custom metal components and assemblies which meet established customer requirements.

We accomplish this by:

- Conforming to policies and procedures
- Training to support our policies and procedures
- Communicating quality objectives and measuring performance
- Maintaining employee involvement and accountability at all levels
- Improving our processes continuously

3.0 Supplier Approval

An onsite audit may be conducted for all new Suppliers to determine the performance and effectiveness of the Supplier’s Quality Management System. An onsite audit may also be scheduled as a result of chronic quality or delivery issues for an existing Supplier.

Suppliers will be monitored based on performance in the following areas:

- Delivery
- Quality
- Corrective Actions
- Supplier Satisfaction

4.0 Supplier Portal



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Key Suppliers will be given access to the G&W Supplier Portal. Through this portal, you will have access to the following supplier applicable items:

- Open and Closed PO's/Releases
- Prints
- Monthly Supplier Scorecard
- Supplier PPAP's
- Supplier Corrective Actions

5.0 Order of Precedence

The following is the order of precedence for all contractual communication between G & W Products and the Supplier:

1. Authorized changes to the Purchase Order
2. Purchase Order
3. Supplier Quality Manual
4. Engineering Drawing
5. Specifications and Standards listed on the Engineering Drawing

6.0 ITAR

ITAR requirements apply to all parts and PO that have an ITAR block on the Engineering Drawing.

7.0 PPAP

7.1 When required by G&W, parts may require an **AIAG** compliant and/or AS9102 PPAP submission. The supplier shall maintain a Production Part Approval Process (PPAP) system to ensure parts submitted to G&W meet all requirements.

7.2 This system should utilize the AIAG standard documentation found in the most current Production Part Approval Process (PPAP) reference manual which can be found at www.AIAG.org. Full approval of this process must take place prior to shipping product to G&W Products.

Resubmission Reasons

- a. Process or product changes will require communication; potential resubmission of PPAP for approval
 - Engineering Changes
 - Tooling transfers, replacement, refurbishment, or additional tooling purchases
 - Correction



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- Tooling inactive for more than 24 months of consecutive build
- Change to options construction or material
- Sub-supplier change or source change of material
- Change in part processing
- Parts produced at additional location
- Documented revision changes to print

8.0 Packaging and Shipping Requirements

8.1 The supplier shall package and ship product in a manner that provides protection against damage, rust, corrosion and contamination. The use of commercial carriers does not relieve the supplier of the responsibility for properly packaging products to ensure acceptance at the point of delivery.

8.2 Product should be packaged so that the product weight or size does not adversely impact the type of transportation chosen.

8.3 Itemized packing list must accompany all shipments. The packing list container must be clearly marked to indicate the shipping and receiving locations. A bill of lading or other carrier receipt must be provided for each shipment.

8.4 G&W can unload both forklift side and forklift rear. All sheets must be loaded forklift side. Coils can be loaded either rear or side. Long product over 90" long must also be loaded for forklift side unload. The max lift capacity is #6000.

8.5 Do not ship more than 7 days prior to the PO due date without written authorization from G&W Products.

9.0 Rejections, returns and sort requirements

9.1 In the event that product is found to be:

- Defective (incorrect to purchase order, drawing, or specifications)
- Damaged (due to incorrect or inadequate packaging)
- A different part received than was on the Purchase Order
- Shipped without the required certification, or certification is found to not meet requirements

9.2 This can result in, product being placed on hold for further evaluation and / or rejected back to the supplier. In the instance, that product is rejected, the supplier must:



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- Notify G&W immediately of any potential non-conforming product or any similar product produced by the same or similar process which may have gone undetected or produced non-conforming product.
- Provide Return Material Authorization (RMA) for suspect product
- Be responsible for return shipping charges and issue a full credit on rejected product
- Identify and prepare containment and sort activity for any product in transit.
- Contain All Product at their facility (current in house inventory)
- Provide Replacement Stock If replacement of returned material is required; a new invoice must be issued for this material. Replacement Stock must be certified prior to release.
- Be responsible for expediting charges, to assure timely product delivery (when required).
- Understand that in the event G&W must sort product to support production and return / replacement cannot be provided in required time frame, the supplier must provide onsite support. A supplier may elect to send in a Supplier supervised sort team to sort parts in-house at G&W or the G&W customer. The supplier will be responsible for all costs incurred. The supplier may also authorize G&W to conduct, sorting of suspect product. There may be a cost impact if supplier chooses to authorize G&W to sort product.

9.3 If a supplier defect causes G&W's finished product to be reworked or scrapped, charges may be incurred and will be the responsibility of the supplier.

10.0 Supplier Corrective Actions Request

10.1 In the instance that product is rejected due to quality requirement issues found in receiving or in-process inspection, G&W reserves the right to issue a Supplier Corrective Action Request (SCAR) to the supplier for completion.

10.2 A copy of the SCAR will be e-mailed to the supplier, and must be completed and returned within ten **(10) working days** unless G&W requests a different response time or the supplier asks for and is granted an extension.

10.3 It is preferred that G&W SCAR format be used, however, a supplier's corrective action format can be accepted provided it addresses, root cause elimination and permanent corrective action for item rejected.



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10.4 Suppliers should focus on root cause elimination, and error proofing as part of any SCAR activity.

10.5 All SCAR's are subject to the review and approval of G&W's QA department representative. In the event a response is not found to be acceptable, the supplier will be notified, and additional information will be requested.

10.6 Failure to respond to a SCAR in a timely manner may result in reduced scores in quarterly score card evaluations

11.0 Quality Clauses

G&W will identify which of the following clauses to flow down to Suppliers. The applicable clauses will appear on the PO.

11.1 (Q1) Material Certifications

Each shipment shall include material certifications that indicate the material conforms to the specifications listed on the PO and/or engineering drawing. The certification must contain the Manufacturer's name, heat/lot number, measurement test data, method of inspection and country of origin.

11.2 (Q2) Certification of Conformance

The Supplier shall provide a Certificate of Conformance (COC) that shall include the following information at a minimum:

- Supplier's name
- Supplier's address
- G&W's name
- G&W PO number
- PO line item number
- Part numbers listed on PO
- Serial / Lot / Container number as applicable
- Process specifications as applicable
- Quantity of parts being certified
- Statement assuring the conformance of the product or process being delivered
- Signature, title and date of the authorized person designated by the Supplier.

11.3 (Q3) Special Process Certification



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Each shipment is to include process certifications reflecting the applicable specification number with the latest revision as required by the PO and/or engineering drawing. All additional records and sample test results shall be maintained and made available for review upon request by G & W Products.

11.3.1 Heat Treatment

Supplier shall provide a certification that heat treatment was performed as described on the engineering print and/or PO. When a hardness range is specified, all testing procedures must follow those located on the engineering print and/or PO. The testing results, acceptance criteria, and method for testing must be identified on the certification.

11.3.2 Hydrogen Embrittlement

Supplier shall provide a certification that hydrogen embrittlement was performed as described on the engineering print and/or PO. All testing procedures must follow those located on the engineering print and/or PO. The testing results, acceptance criteria, and method for testing must be identified on the certification.

11.3.3 CARC Painting

Supplier shall provide a certification that CARC finish was applied per the described specification on the engineering print and/or PO. The certification shall include any testing results, acceptance criteria, and testing methods that were performed, e.g., adhesion, humidity, salt spray, etc.

11.3.4 Plating

Supplier shall provide a certification that plating was applied per the described specification on the engineering print and/or PO. The certification shall include any testing results, acceptance criteria, and testing methods that were performed, e.g., adhesion, humidity, salt spray, etc.

11.4 (Q4) Material/Process Sample

A material test sample is required. The test sample shall be of the same material lot and processed simultaneously, through all processes, with the lot of material that it represents. The size and shape of the test sample will be determined by G&W and identified on the PO.

11.5 (Q5) Shelf Life

Items that have a useful life that may expire will require that each container has a label stating the following at a minimum:



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- Date of manufacture
- Date of expiration
- Lot or batch number

All lots received with a shelf life will also require a certification stating the following at a minimum:

- Name of manufacturer
- Date of Manufacture
- Date of expiration
- Lot or batch number
- Storage conditions, e.g., temperature, humidity, exposure to sunlight, etc.

Upon receipt of product, a minimum of 75% of the original shelf life must remain valid. Anything under 75% will result in the rejection of the material and the return of the material back to the Supplier.

11.6 (Q6) Traceability

Traceability will apply to the material or product being supplied under this PO. The level of traceability will follow one of the following levels:

- **Level 1:** Traceability includes a requirement to serialize each individual part being supplied. In this case, the method of serialization will be such that prevents the possibility of duplicate serial numbers.
- **Level 2:** Traceability includes a requirement to identify parts to a specific Lot. A “lot” is a group of product that was produced under the same conditions at the same time, and were submitted for inspection as a group.

(Q6a) CARC painted parts are required to include as addendum to part marking:

- The date parts are painted
- The painter’s initials

11.7 (Q7) Acceptance Test Data

Acceptance test data shall be required with each shipment of product to G & W Products. The test data shall include actual measurements/readings identified by the actual characteristics and/or parameters being tested. The method of obtaining the measurements shall also be documented. The test data will be verified by an authorized qualified person designated by the Supplier.

11.8 (Q8) Non Destructive Testing (NDT)

Products that require NDT shall have the results provided on a document, certifying that the appropriate testing was completed in compliance with the standards and specifications that



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are documented on the engineering drawing and/or PO. The certifications shall contain the following information as a minimum:

- Supplier's name
- Supplier's address
- G&W's name
- G&W PO number
- PO line item number
- Part numbers listed on PO
- Serial / Lot / Container number traceable to the part tested as applicable
- NDT Process specifications
- Applicable acceptance criteria
- Quantity of parts being certified
- Statement assuring the conformance of the product or process being delivered
- Signature, title and date of the authorized person designated by the Supplier.

All radiograph films and ultrasonic screens will be provided to G&W Products with each shipment. The films and screens will be identified so that they are traceable to the actual part tested. Unless otherwise directed on the PO or engineering print, the method of traceability is up to the discretion of the Supplier.

11.9 (Q09) Mercury Contamination

Supplier shall certify that all items supplied to G & W Products do not contain mercury or its compounds in any form.

11.10 (Q10) Dimensional Inspection Data

Documented dimensional inspection reports shall accompany each shipment made to G&W Products. The dimensional data shall include actual measurements, the method of inspection used, and the specification being measured.

11.11 (Q11) Production Part Approval Process (PPAP)

PPAP elements required for submission will be identified on the PPAP checklist supplied by G&W Products. All requirements, regardless of submission level, of the PPAP shall be completed, retained, and made available upon request to G & W Products. The Supplier shall not ship product to G & W Products prior to receiving a signed PSW.



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Any product, process, tool, material or supplier changes shall require the Supplier to submit a new PPAP.

11.12 (Q12) DFAR

Raw material or the material used to make part(s) purchased on this PO must be DFAR compliant to the most current DFAR standard.

12.0 Record Retention

All records associated with any dealings with G & W Products, e.g., PO, SCARs, PPAP, FAIR, Dimension Reports, COC, etc., must be retained for a minimum 50 years from time of origin. This requirement may be waived with written consent given by G & W Products' Quality Manager.

13.0 Dock to Stock Inspection (DTS)

13.1 Suppliers will be certified on a part by part basis to qualify for the DTS status

13.1.1 Review the part's quality history with the Supplier. No rejections in the most recent four shipments. Any rejection will disqualify a part from DTS consideration.

13.1.2 Review Supplier quality record to ensure all problems occurring in the last twelve months have been permanently corrected. Unresolved SCAR's will disqualify a part from DTS consideration.

13.1.3 Documentation that appropriate, accurate and calibrated devices are used by the Supplier to verify product, will be required in order for a part to be considered for DTS.

13.2 All parts that qualify for DTS status are required to have an inspection report with each shipment.

14.0 Supplier Acknowledgement

14.1 Complete attached form



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SQAM Acknowledgement

**SUPPLIER ACKNOWLEDGMENT OF RESPONSIBILITIES AND OBLIGATIONS
CONTAINED WITHIN THE SUPPLIER QUALITY ASSURANCE MANUAL (SQAM)**

I, the undersigned, hereby acknowledge that I have received, read, and understand the requirements of the Supplier Quality Assurance Manual (SQAM). I agree to implement and adhere to the quality standards herein.

Company Name

Printed Name

Signature

Title

Date