PO Box 1045
1801 Production Drive
Findlay, OH 45839-1045
Phone (419) 423-7111
purchasing@gswiring.com

G.S.W. MANUFACTURING, INC.
SUPPLIER QUALITY MANUAL

G.S.W. Manufacturing, Inc. Mission Statement

GSW teamwork: we harness innovation, strengthen connections, and deliver high quality, high-value products.

GSW QUALITY SYSTEM POLICY

"QUALITY EXCELLENCE"

"THE FIRST TIME"

"ON TIME"

"EVERY TIME"

GSW ENVIRONMENTAL SYSTEM POLICY

G.S.W. Manufacturing, Inc. (GSW) is committed to the conservation of our natural resources, to protect our environment as well as our Associates.

GSW achieves this through continual improvement in:

- Compliance to all applicable Federal, State, and local regulations, and other requirements
- Prevention of pollution
- Quality & Environmental Management Systems
- Environmental performance measures
- Associate health and sanitation practices

GSW PURCHASING GUIDELINES

GSW practices procurement of products and services with consideration of their impact on the environment and human rights. GSW takes appropriate steps to avoid procurement that can cause social problems, such as conflict minerals or other human rights injustices. GSW ensures its workforce is trained and aware of these guidelines.

GSW expects our suppliers to also demonstrate appropriate practices by maintaining specified certifications and exhibiting global standards per this document and its appendices, such as, but not limited to, the following topics:

- Health and Safety of employees and business partners
- Safety and Quality of Products and Services
- Human Rights, Child/Slave Labor, and Diversity
- Environmental conservation and compliances
- Risk management
- Responsible Procurement and Supply Chain Management

TABLE OF CONTENTS **Page**

REVISION HISTORY

Section	Revision	Page	Date
	Added Revision History	5	11/22/10
3	Added encourage C-TPAT certified	6	11/22/10
11.6	C-TPAT security at point of origin	16	11/22/10
12	Addition to Delivery requirements	16	11/22/10
13.2	Revised Bar Code label requirements	17	11/22/10
16	Added C-TPAT Expectations	20	11/22/10
18	Revised transmission method for Forecasting & Ordering - EDI	21	11/22/10
19	Shipping Instruction-Third Party Billing revision and addition	22	11/22/10
20	Supplier Scorecard – added corrective action requirements	23	11/22/10
QSF-414-4	Added QSF-414-4 C-TPAT Security Self-Assessment to appendices	24	11/22/10
QSF-486	Added QSF-486 C-TPAT Compliance Audit to appendices	24	11/22/10
3	Quality System Requirements	6	5/20/13
7	Part Approval Submission Process	8	5/20/13
11	Problem Resolution	13	5/20/13
3	Quality System Requirements	6	8/28/13
13.2.3	US Supplier Palletizing Specifications	19	8/28/13
4	Conflict Minerals	6	9/4/14
8.c	Material Certification & Performance Test Results	9	9/4/14
19	Revised material ordering – ORDERING METHOD-EDI	22	12/15/15
20	Shipping Instructions – BOL’s	22	12/15/15
	GSW Purchasing System Guideline	3-4	7/19/17
QSF-B-434	Added QSF-B-434 Supplemental Purchasing Audit Checklist to appendices	26	7/19/17
13	Supplier Labeling Specifications	19	12/19/19
QSF-414	GSW Supplier Quality Manual alignment with revised Terms & Conditions (QSF-414-1)	All	7/21/20

QSF-414	GSW Supplier Quality Manual alignment	All	6/8/22
4	Added Cyber Security	6	6/8/22
5	Added Supplier Portal Responsibilities	7	6/8/22
12	Added ISO 14001 and added Child / Slave labor	10	3/2/23
Cover 5 6 thru 19 20 21 23	Added GSW teamwork statement Removed Supplier Portal Responsibilities Updated/revised verbiage per sections Added Document Control section Updated/revised verbiage Removed Primary/Senior Logistics Coordinator	11	2/19/24
17	Updated to specify how months in advance PCR and ECR be submitted	14	3/8/24
19	Problem Resolution – added Ranking categories	15	7/31/24
19.1	Revised for scorecard point ranking	15	8/30/24

1. Purpose

The purpose of this manual is to communicate GSW's Quality requirements and Purchasing expectations to suppliers. It is the intent of GSW -to do business with Suppliers who are able to provide products, processes and services consistently to specifications, with competitive costs, and in accordance with the defined delivery schedule. The manual is intended to assist suppliers in their understanding of GSW requirements regarding specific management, communication, and reporting processes.

The GSW Supplier Quality Manual is an essential segment of GSW's Supplier Portfolio Packet. The Supplier Portfolio Packet is made up of this document and all its Appendices listed at the end of this manual.

2. Scope

The contents of this manual apply to all GSW suppliers of products and services.

Supplier Acknowledgement of Receipt of GSW Supplier Quality Manual and Appendices is required per the final page of this document.

3. GSW Terms and Conditions of Purchase

It is the Supplier's responsibility to ensure that they are in receipt of the current version of GSW's Purchasing Terms and Conditions (Appendix QSF-414-1). Contact GSW's Purchasing Department at Purchasing@gswiring.com to request the correct revision of GSW Purchasing Terms and Conditions of Purchase if Supplier acknowledgement date on the final page of this document is older than one (1) year.

4. Cyber Security

Cyber supply chain risk management processes are identified, established, assessed, managed, and agreed to by organizational stakeholders.

Suppliers and their business partners of information systems, components, and services are identified, prioritized, and assessed using a cyber supply chain risk assessment process as detailed using the National Institute of Standards and Technology (NIST) standard found at https://www.nist.gov.

Contracts with suppliers and their business partners are used to implement appropriate measures designed to meet the goals of cyber security protection.

Suppliers and their business partners are routinely assessed during the annual review requesting audits, test results, or other forms of evaluations to confirm they are meeting their contractual obligations.

5. Supplier Quoting and Confidentiality

GSW's primary method of issuing Request for Quote (RFQ) is via email with the requirement that Supplier provide its quote to GSW within two (2) business days of Supplier's receipt of the RFQ for mass production components, and (5) business days for new production components.

Suppliers often require sensitive GSW data to provide a quote. The GSW Mutual Confidential Disclosure Agreement (Appendix QSF-B-437) requires authorized Supplier representative signature prior to receiving proprietary details.

All documents must be completed and returned to GSW upon the requested due date. Such documents include, but may not be limited to, CTPAT (Appendix QSF-414-4 C-TPAT Security Self-Assessment), Certificate of Manufacture Origin including City, State/Providence.

Suppliers who meet GSW requirements will be considered for awarded business upon review of said documents.

6. GSW Purchase Orders and Supplier Agreements

GSW's ordering system is designed to provide a lean flow of material from the Supplier to GSW. GSW's goal is to maintain minimum inventory levels necessary to meet GSW production demands without interruptions. GSW requires accurate and on time deliveries. GSW will provide orders and forecasts (where applicable) to the Supplier based on GSW customers' firm order and/or adjustable forecasts, as well as GSW's inventory levels and production schedule.

GSW considers Supplier agreements firm when GSW places a purchase order/firm order per the Supplier's formal quotation. All orders require Supplier Acknowledgement or written dispute within one (1) business day of receipt of GSW's purchase order. Lack of Supplier acknowledgement within the required timeline results in Supplier acceptance of GSW's purchase order terms. Refer to GSW Terms and Conditions of Purchase (Appendix QSF-414-1).

GSW primary method of issuing POs is via email and EDI (CS), in the form of firm releases, release history and status, and planned orders to be utilized for Supplier forecasting and planning.

GSW's respective Material Control Departments are responsible for the issuance of GSW firm orders and planned orders, as well as communications and escalations regarding such orders.

6.1 Cost Recovery

Suppliers will be responsible for costs incurred by GSW, or GSW partners (partners equating to those GSW relationships under written agreements or contracts), due to Supplier breach of GSW Supplier agreements (see Appendices). Costs may include, but are not limited to:

- GSW administrative efforts related to invoice discrepancies, breach of shipping instructions, incorrect/missing shipment documentation, etc.
- Third-Party containment, sorting of suspect material, rework, scrap, outsourced testing, product approval rejection, other quality failure expenses.
- GSW Customer charges due to Supplier performance.
- GSW production disruption due to Supplier performance. May include GSW overtime cost, production downtime, price difference of alternate sourced product, related GSW premium freight.
- Supplier misclassification of GSW shipments, cost variance of unapproved shipping instructions/carriers, import/export & compliance costs due to unapproved shipping methods.

Costs will be debited from the Supplier's GSW account as a credit. Upon notification of the intent to apply GSW credit, suppliers will have 10 business days to appeal the charges. If no response is received from the Supplier, GSW will consider lack of response as acceptance of the applied credit.

6.1.1 Cost Increase Requests

GSW understands the volatility in the markets and that suppliers may, at times, be forced to request cost revision. The following must be met for GSW to consider cost revisions:

- Cost revisions can only be made on April 1st or October 1st of each year.
- Supplier must give 60 days' notice prior to the change period of cost increase request.
- Supplier must provide sufficient evidence to validate the cost increase request. The evidence can be an actual invoice showing the difference or submission of market index data from a reputable company.
- Cost break down sheet showing the influence of the market increase directly to the cost of the part is required.

7. GSW Method of Business Information Interchange

Suppliers will receive GSW purchase orders and forecast via email and EDI (CS). Note that GSW provided forecasts are for Supplier planning purposes only. GSW may transmit documents via email, or other means as requested.

GSW's forecasts are intended for Supplier planning purposes only. Forecasts are not to be considered firm order criteria. GSW will not be held financially responsible for any raw materials that were procured, expenses incurred, and/or goods produced based on a forecast without a GSW purchase order unless otherwise negotiated with the Purchasing department.

7.1 Business Hold

Suppliers may be placed on GSW business hold if the Supplier is financially unstable, has severe quality or delivery problems that are unresolved. The Supplier will be notified upon being placed on business hold.

The following may occur if a Supplier is placed on business hold:

- Formal meeting with GSW
- Removal as an approved supplier
- No new future business inquiries from GSW
- Supplier Development efforts by GSW

To be removed from the business hold, the Supplier must implement corrective actions for the cause of their deficiencies and address preventive actions to prevent recurrence. A plan for implementation must be provided to GSW for approval. Once a Supplier has satisfied the GSW requirements, they will return as an approved supplier.

8. Approved Supplier/ Supplier Performance & Evaluation

Production components/materials/processes and services will only be purchased from GSW approved suppliers. GSW evaluates and selects suppliers based on their proven ability to supply products/services in accordance with GSW's specified requirements.

A scorecard will be provided to the Supplier by GSW for Suppliers review monthly. Formal corrective actions will be issued for sub-standard performance levels.

Suppliers who receive a corrective action for sub-standard performance are required to complete and return a formal corrective action response as detailed in this Manual. Failure to complete and return a corrective action response may result in a decrease in the Supplier's quality rating and will influence new business opportunities with GSW.

9. Supplier Development

GSW will aid suppliers having trouble meeting performance levels and specifications set by GSW. GSW will assist in:

- Resolutions of critical issues
- Assist suppliers with improvement activities
- Work with potential suppliers to improve capabilities to be considered an approved supplier

- Where applicable, meeting the Customs-Trade Partnership Against Terrorism (C-TPAT) security criteria at point of origin
- Conduct specific training when a need has been identified.

10. Supplier Assessments

GSW may conduct Supplier Quality System audits at the Supplier's facilities. The goal of the audits is to understand Suppliers' conformity to IATF 16949, identify continuous improvements, and to collaborate on best practices.

Potential suppliers may be audited as part of GSW's sourcing process. Current suppliers may be audited as a risk assessment.

Suppliers may be sent a Pre-assessment survey before the audit date (Appendix - QSF-B-434). Supplemental Purchasing Audit Checklist. (Maybe add capacity to this form)? The pre-assessment should be returned prior to GSW conducting the audit. Following the audit, GSW will forward its findings and any needed corrective actions by the Supplier. Audit results will be used in the sourcing decision of potential suppliers.

11. Quality System Requirements

GSW encourages suppliers to develop fundamental quality systems that provide for continuous improvement and emphasize defect prevention while reducing variation and waste.

GSW requires certification to ISO 9001 latest edition at a minimum and ISO 14001. GSW encourages certification to the full IATF 16949 standards (latest edition) as the ultimate goal. Even if a Supplier chooses not to pursue IATF 16949 certification, GSW will require suppliers to comply with all the requirements of IATF 16949. The Supplier shall pass down all applicable statutory and regulatory requirements, special product and process characteristics to their own suppliers. The Supplier shall require their suppliers to cascade all applicable requirements down the supply chain to the point of manufacture. GSW may be able to assist you with basic questions regarding the systems through your Quality Representative.

12. Supplier Risk Management Survey

Suppliers will receive the GSW Supplier Questionnaire (Appendix QSF-414-2). The Supplier Questionnaire and Contingency plan is required to be updated annually, must be completed in full and returned to GSW with all supporting documentation before Supplier quotes may be considered for GSW business.

13. Conflict Minerals

GSW is committed to complying with the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding Conflict Minerals. Our suppliers are encouraged to source/purchase Tantalum, Tin, Tungsten, and Gold from "DRC conflict free" suppliers. GSW will take steps to ensure that our products do not contain conflict minerals that contribute to human rights abuses in the Democratic Republic of the Congo or adjoining countries. GSW annually subscribes to iPoint "Conflict Minerals Platform" and reviews the CFSI Conflict Mineral Reporting statements to assist us with the gathering and monitoring of sourcing information. GSW expects our supply partners to provide and maintain details for all component purchases. This will include reporting down to the smelter level on any purchased items as it relates to Conflict Minerals.

GSW will periodically throughout the year request updates from our suppliers. GSW desires to have a Conflict-Free supply chain and is devoted to sourcing materials from suppliers who have processes in place for tracing mineral/material origins and ensuring that these products do not originate from the DRC or the surrounding area.

14. Product Realization

When a Supplier is selected to supply product, GSW may begin formal Product Realization activities with Suppliers. Product Realization is designed to communicate product quality expectations and verify that suppliers have adequate processes in place to assure smooth start-ups. GSW may review Product Realization requirements with suppliers in advance.

Timing will be established and communicated during the source selection process. GSW will determine which elements of Product Realization are required and determine timeline for completion. GSW will work closely with suppliers in the development and implementation of all documents and processes for suppliers unfamiliar with Product Realization.

GSW may conduct a Launch Readiness Review at the Supplier's facility. This review will include suppliers end to end launch and mass production processes associated with said launch.

Suppliers may be required to run Production Trials (Run at Rate) prior to mass production in order to determine the capability of their processes to meet required production rates and quality levels. Should Supplier trials prove unsuccessful, corrective actions must be completed prior to the start of mass production.

15. Part Approval Submission Process

When components/materials need to be shipped prior to Production Part Approval Process (PPAP) approval, the Supplier is required to send dimensional results report with a drawing indicating the dimension referenced for each shipment until the final PPAP is approved. GSW requires a Level 3 PPAP. See www.AIAG.org for PPAP Level 3 requirements.

Suppliers are required to obtain approval for mass production parts prior to shipment through the Part Approval Process. The objective of the Part Approval Process is to verify that a Supplier's production process can produce parts to meet GSW standards.

Part Submissions shall be sent to QCOH@gswiring.com.

The following is required to be submitted as part of Part Approval submissions.

15.1. Drawings

- Each part drawing along with referenced specifications and drawings must be submitted with each Part Approval.
- Each dimension and note must be ballooned (numbered)

15.2. Dimensional Results

- A one-piece dimensional layout is required for each mold, cavity, die and production line that produces a part.
- Dimensional results must be provided for all dimensions, notes, and other specifications on the part drawing.
- The dimensional layout must correspond to the ballooned drawing.

15.3. Material Certifications and Performance Test Results

- Suppliers must provide evidence of compliance to material specifications through material and performance results. The first supplied product shipment must be preceded with Material Certification sent via email to GSW Corporate Offices in Findlay, Ohio. Material Certifications are required to be re-submitted to GSW at a minimum of every 12 months. It is the Supplier's responsibility to monitor and ensure that GSW receives updated Material Certifications at a minimum every 12 months. Material certification must be completed for every lot and available upon request.
- All PPAP submissions must be accompanied by a Material Certification report.
- Material Certifications must include test results with the specifications either from the Supplier and/or its sub-supplier.
- Certificates of Origin if not previously provided should accompany the PPAP.
- Safety Data Sheet (SDS) details and International Material Data System (IMDS) reporting may be required where applicable.

15.4. Gage R & R

- Suppliers are required to provide evidence that appropriate statistical studies have been conducted to analyze the verification present in the result of measuring and test equipment. Gage repeatability and reproducibility (R&R) studies are required. Other analytical methods and acceptance criteria may be approved by GSW. (Refer to

Automotive Industry Action Group (AIAG) Measurement System Analysis for further discussion on R&R and other measurement techniques.

15.5. Process Capability Studies

- Process Capability Studies should be completed for all special characteristic dimensions as determined by GSW.
- All dimensions with tolerances must have result Cpk > 1.67. Process capability of >1.67 ensures that 99.99994% of assemblies supplied to GSW are within tolerance.

15.6. Samples

- Suppliers may be required to submit up to 6 sample parts unless otherwise stated, with each Part Approval Submission.
  - Samples from tooling should be submitted for each mold or cavity.
  - Each sample part must have a tag indicating it is a Part Approval sample. The tag should include the part number, revision level, date parts were produced, Supplier name, and cavity number.

Suppliers may be able to submit one Part Approval submission for a family of parts. GSW will notify the Supplier when this type of submission is necessary.

No Part Approval should be submitted to GSW if any dimensions or test results do not meet part drawing requirements. Supplier shall make every attempt to implement corrective action for any out of spec condition. Suppliers shall contact GSW if they are unable to meet part drawing. GSW will then inform suppliers on required course of action.

15.7. Process Flow Charts (PFC)

- Supplier must include Process Flow Charts that show all actions from Receiving to Shipping with PPAP submissions. Suppliers can use their own format. GSW requires:
  - GSW part number as identified.
  - Revision level and date to be included on each drawing
  - All critical characteristics identified in their respective processes
  - All processes numbered in accordance with the Process Failure Mode Effects Analysis (PFMEA) and Control Plan
  - Clear descriptions of each process
  - Include off-line processes supplying main process

15.8. Process Failure Mode and Effects Analysis (PFMEA)

- Suppliers are required to include a PFMEA showing all actions from Receiving to Shipping with PPAP submissions. Requirements below:
  - GSW part number as identified
  - Revision level and date to be included on each drawing

- All potential failure modes addressed
- Critical Characteristics identified in their respective processes
- All processes numbered in accordance with the PFC and Control Plan

15.9. Control Plan

- Suppliers control plan must show all actions from Receiving to Shipping and must be included with PPAP submissions. AIAG format for Control Plan is recommended. Requirements below:
    - GSW part number as identified
    - Revision level and date to be included on each drawing
    - All potential failure modes addressed with adequate controls
    - Critical Characteristics identified in their respective processes
    - All processes numbered in accordance with the PFC PFMEA

16. Temporary Deviation

Due to GSW's production requirements, a temporary deviation request must be submitted to GSW and approved prior to shipping non-conforming material if manufactured product does not conform to GSW specifications and lead-time does not allow permanent corrective action.

GSW approval will be based on how deviations might impact the form, fit and function of the parts.

Deviation requests must include details of the non-conformance and the quantity of parts affected or suspect dates.

17. Process Change Request (PCR)

A PCR form must be submitted to QCOH@gswiring.com and approved if any of the following occur: For all changes Level 3 ppap is required. All trial/sample shipments and first shipment require a notification tag unless otherwise negotiated with quality engineer. Any change that will require and ECR (drawing change) will need to be submitted at least 7 months in advance, any other change that require a PCR will need to be submitted at least 4 months in advance

NONE OF THE ABOVE CHANGES CAN OCCUR PRIOR TO PCR APPROVAL

- Change in the manufacturing process, materials, or tooling
- Additional tooling or added cavities to tooling currently approved for mass production
- Manufacturing Location changes
- Sub-supplier changes

18. Engineering Change Request (ECR)

Should Supplier wish to make a permanent change to a part or drawing, appropriate ECR documentation must be submitted to QCOH@gswiring.com and approved prior to any change.

19. Problem Resolution

19.1 Supplier Corrective Action Request (SCAR) Process

Upon receipt of nonconforming material, GSW may issue a SCAR (QSF-A-456 Supplier Quality Corrective Action Request/Report) via email. Nonconforming material can be found during incoming inspection, audit, assembly, or warranty returns.

If problems are found during pre-production fitting trials or are considered minor issues, GSW will issue a Quality Notification to the Supplier describing the problem, unless it is a repeat issue then a formal SCAR will be issued. SCAR will be issued in the following ranking categories and point:

- A-Rank – A-Rank is defect found at customer & critical print item defect, component failure or safety concern. Points applied for A-Rank are 20. Response time requirement is 24 hours.
- B-Rank – B-Rank is defect found at GSW, critical print item defect, or component failure. Points applied for B-Rank are 10. Response time requirement is 48 hours.
- C-Rank – C-Rank is an appearance defect found at GSW. Points applied for C-Rank are 5. Response time requirement is 72 hours.
- RFI – RFI rank is Request for Information. No points are applied for first offense. Response time requirement is 5 business days. Replacement parts may be required.
- FYI – FYI rank is For Your Information. No points are applied for first offense. Response time requirement is 5 business days.
- Past due SCARs will result in a 20 point deduction from the quality score.
- Recurring quality issues will result in a 10 point deduction from the quality score.

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

- Border crossing fees are Supplier responsibility for all returned materials and, when applicable, returnable packaging.

GSW reserves the right to sort suspect material to avoid shutdown of its production lines and the supplier will be charged $50.00 per hour per person with a minimum 1 hour charged.

- SCARs are required to be closed within 10 business days. SCARs not closed within 11 to 30 business days of notice will incur an additional $200 admin fee weekly unless otherwise negotiated with GSW quality.

- SCARs not closed within 31 business days of notice will incur an additional $800 admin fee weekly.

Within 24 hours of notification of defective parts through SCAR report, suppliers must:

- Implement requirements of Normal containment
- Inform GSW of the plan to replace or sort suspect material
- Identify short term corrective actions
- Send initial SCAR responses

Within 10 business days of notification of defects suppliers must:

- Define and verify Root Causes of defect and non-detection
- Determine and implement permanent corrective actions for Root Cause and non-detection
- Verify and validate permanent corrective actions

GSW will analyze the final SCAR response and provide the Supplier with a decision on closure of the SCAR. SCAR responses will be Accepted, Conditionally Accepted, or Rejected. Resubmission of the SCAR response with discrepancies corrected is required within 5 days.

19.2 Problem Solving Expectations

When GSW issues a SCAR request, suppliers are required to submit a formal response. SCAR responses must be in the format supplied by GSW (Appendix QSF-A-456) or suppliers' equivalent format. Refer to Appendix QSF-422 Corrective-Preventive Actions Request (CAR). Provide Root Cause Analysis per industry standard format (8D,5Y, etc.).

1. Containment

Suppliers are responsible for developing a process to protect GSW from receiving material that does not meet the quality requirements and specifications set by GSW. Suppliers must include at a minimum element of the following process of non-conforming material.

2. Non-Conforming Material

Suppliers' product will be placed into Non-conforming Material Status as a result of GSW or GSW's customer receipt of defective material. Suppliers will be required to take immediate actions to cease shipping defective material. These actions include:

- Sending 100% certified parts for required shipments to GSW
- Marking Certified parts as agreed to by GSW
- Sending certified replacement parts to replace suspect parts in-transit and in GSW inventory
- Utilizing a Certified Part identification label to identify certified shipments
- Collecting daily sort data and reporting findings to GSW
- Suppliers will be released from Non-conforming Material Status once the SCAR response has been approved.

19.3 Supplier Quality Meetings

Unacceptable performing suppliers may be required to attend Supplier Quality Meetings when their performance drops below acceptable levels. All scheduled meetings are mandatory. The QSF-414-2 Supplier Questionnaire is required to be updated annually, including the escalation contact list.

The purpose of Supplier Quality meetings is for Suppliers to present containment and corrective actions to improve their performance in the deficient areas identified by GSW.

Suppliers can be called to attend Supplier Quality Meetings for:

- Unacceptable Quality
- Repetitive Issues
- Responsiveness to concerns raised by GSW
- Delivery problems
- Other reasonable grounds identified by GSW

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

20. Document Control

20.1 Written Procedure

The supplier shall provide and maintain written procedures covering all aspects of its quality control program.

20.2 Inspection Instructions

All inspections and tests shall be described by clear, complete and current written instructions.

The instructions shall include as a minimum requirement:

1. Method of inspection
2. Tools to be used
3. Standard for acceptance and rejection
4. Sample size and frequency concerning inspection shall be documented.
5. Any Customer identified critical points/special characteristics are to be monitored (identified as such on test records).
6. All critical points/special characteristics require a 30-piece study showing capability. Points having CPK's between 1.00 to 1.32 will be required to have improvement activities.
7. Suppliers may use their own company designation for critical point/special characteristics on documentation/records.

20.3 Records

The supplier shall maintain adequate records of all inspections and tests that are performed as parts of the quality control function. The records shall contain, as a minimum requirement, the following:

1. Characteristic(s) observed
2. Frequency of observation
3. Number and type of deficiencies found
4. Material disposition
5. Identification of the recorder
6. Corrective Action
7. Date of inspection

20.4 Record Retention

Suppliers are to use the below Record Retention table to determine the length of time records are to be kept. For materials with open P.O.'s longer than 10 years, no records need to be retained longer than 13 years. Examples: bulbs, molding compound, adhesives, etc.

Record Retention Matrix			
No.	**Title**	**Description**	**Retention Time**
1	**Production Part Approvals**	Records and documents required for Production Part Approval Process (SDOC OR SPPAP) in accordance with PPAP Reference Manual, i.e., control plans, supplier SDOC OR SPPAPs, PSWs, etc.	20 years
2	**Purchase orders/Purchase Amendments**	Purchasing documents for procurement of materials, components, products, and services to be incorporated into the finished product.	20 years
3	**Tooling records**	Records associated with the purchase of production tooling.	20 years
4	**Tooling Preventive Maintenance Records**	Records documenting preventive and predictive maintenance.	20 years
5	**Tooling Repair Maintenance Records**	Records documenting tool repair/modifications.	20 years
6	**Engineering Design Output Documents**	Design FMEAs, drawings, specifications, bills of material, process procedures, calculations, prototype test reports, and other documents established in the course of product design.	20 years
7	**Contract Review Records Offers**	Team Feasibility Commitments, and other documents established in the course of negotiating and implementing contracts.	20 years
8	**ECN's**		20 years
9	**CAD Data Transfer Forms**		One year.
10	**Customer Complaint Records**	Files with customer complaints and records with short and long-term resolutions.	End of production, plus twelve years.
11	**Supplier Evaluation and Performance**	Records Documents demonstrating subcontractor quality capability and quality performance.	**20 years**
12	**Calibration Certificates**	Inspection, measuring, and test equipment calibration certificates.	20 years
13	**Nonconforming Product Records**		20 years
14	**Corrective and Preventive Action Records**		20 years

15	**Quality Verification Records**	Inspection and test results, performance control charts (SCs), material certifications, photometric results, etc.	20 years
16	**Training Records**	Personnel training records.	20 years
17	**Management Review Records**	Minutes of management review meeting.	**20 years**
18	**Records of Internal Quality Systems Audits**		20 years
19	**Product Quality Records**	Work orders, traceability records, non-performance control charts (SCs), first piece, quality checks, M/C checksheets, Set-up change checksheets, PM checksheets, etc.	20 years
20	**Abnormality Logs**		20 years
21	**Project Management Documents**	Timing Charts, New Project Progress Report (NPPR), & Team Feasibility Commitment.	20 years
22	**Warranty Records**	Customer Warranty Data	20 years

21. Delivery Requirements

21.1 On Time Delivery

Suppliers are required to achieve 100% on time delivery. If the Supplier is unable to deliver product by the require due date, Supplier must notify the order issuing GSW Material Control prior to the required order ship date via email.

Suppliers are required to achieve 100% on time delivery, shipments must not arrive more than 3 days prior to the due date, if early this will be reflected negatively on Supplier Delivery Score. If the Supplier is unable to deliver product by the required due date, Supplier must notify the order issuing GSW buyer prior to the required order ship date. The issuing Material Control personnel information can be found on the provided Purchase Order. The appropriate Plant MC team, per the order SHIP-TO location, must also be in copy of communications of late delivery. Plant contacts found below.

GSW Ohio Material Control: materialcontroloh@gswiring.com

GSW Reynosa, MX Material Control: mcmex@gswiring.com

GSW Guanajuato, MX Material Control: materialcontrolgto@gswiring.com

Notification to GSW through via email must also occur anytime suspect material has been shipped. Suppliers are required to notify GSW-of potential problem product.

Failure to meet GSW's 100% on time delivery requirement may result in a decrease of current and/or future business opportunities with GSW. Suppliers who do not meet our 100% on time delivery requirements also release GSW of all forecasted raw material requirements.

Delivery must be made per GSW Supplier Agreement shipping terms, as defined within GSW Terms and Conditions of Purchase (Appendix QSF-414-1). Unauthorized deviation from said agreement may result in added cost incurred by GSW to be passed to Supplier.

21.2 Lead Time Amendment

Supplier is required to minimize risk by covering the supply gap of increased lead times. Supplier is required to provide timely communication of reduced fixed lead time.

Suppliers are required to honor lead times agreements, per current quote. Supplier must submit official revised quote for lead time changes. GSW must receive revised quote 30 days outside of current lead time agreement.

Reason for proposed lead time change must be provided by Supplier at time of submitting revised quote to GSW.

Supplier must receive official GSW approval from authorized GSW Purchasing personnel.

Delayed delivery due to unapproved lead time changes will not be accepted. Supplier will be responsible for all premium shipping arrangements and cost to ensure on time delivery.

22. Packaging: Product Shipment and Shipment Identification Requirements

22.1 Supplier General Guidelines

Supplier is to propose, and GSW shall confirm the acceptance of, the most efficient way to package the product.

Supplier shall provide a contact name and number to deal with packaging issues.

Pallet loads may consist of mixed part numbers, but only one part number per container is allowed.

All Pallets shall have four-way fork entry and have adequate clearance for forks.

Once the standard quantity per box is established, this shall not change without written approval from GSW.

All manual handled boxes and products combined gross weight shall not exceed 35 lbs. This excludes Wire Barrels/Containers.

Supplier shipments containing deliveries to multiple GSW locations within same shipping container/truckload, must clearly identify all packaging and shipping documents with appropriate final GSW location.

Supplier is responsible for costs associated with non-compliance of GSW labeling, packaging and palletizing specifications.

22.2 Shipping Document Requirements

Supplier's packing slips must include GSW Purchase Order Number, GSW Unit of Measure, and GSW Part Number.

Supplier Advanced Shipping Notice (ASN) is required.

Commercial Invoice must include Country of Origin.

Bill of Lading must include accurate number of skids and boxes within said shipment.

22.3 Supplier Labeling Specifications

- AIAG (Automotive Industry Action Group) standards shall apply. Refer to https://www.aiag.org.
- B-10 LABEL FORMAT
- The Supplier shipping the product shall properly identify each product shipped to GSW, in English, using GSW part numbers and with all correct punctuation. If other part numbers are on the label, the GSW part number will have the largest font size.
- Labels shall be placed on two sides of packaging and visible when placed on skid.
- The label size shall be 4" high x 6" wide. If boxes are too small for this size of label, an appropriate size label can be used, but it must contain all required information.
- Color of the label shall be white with black lettering.

Required information in text and QR Code on each label is as follows:

1. GSW PART NUMBER (qualifier 'P')
   As stated on the Purchase Order
2. DESCRIPTION
3. QUANTITY/BOX or CONTAINER (qualifier 'Q')
   This is the quantity per unit of measure in the container
4. Unit of Measure (as stated on GSW Purchase Order)
5. CONTAINER SERIAL NUMBER (qualifier "S")
   A unique number that is not to be duplicated
6. Lot Traceability Number

A unique number or date for lot traceability purposes

7. GSW Purchase Order (PO) number
8. Name / Addresses
   This is Supplier Name and Address information
9. GSW scannable bar code and QR code labels are to be used on all box or container labels for GSW purchases.
10. When products are shipped in bag quantities, each bag, even if in a carton, shall also be labeled as specified above**.**

22.3.1 Material Expiration Date

Material expiration dates must be included on the labels, if applicable. Expiration date needs to exceed supplier Lead Time with a minimum of 6 months from delivery date to GSW.

22.3.2 Supplier Labeling Specifications

Please refer to AIAG B-10 LABEL FORMAT (rev. 2004) see link below:
https://elsmar.com/pdf_files/B-10%20Label%20Guidelines.pdf

22.3.3 U.S. Supplier Palletizing Specifications

Containers shall be secured to the pallet for transportation by plastic banding or stretch wrap. Stretch wrap shall be transparent to allow labels to be visible.

Corner posts and bottom trays are to be used when necessary to protect the product from being damaged.

The standard pallet size for GSW is 48”x45”x4.5” or 42”x42”x4.5”, whichever contains the product the best.

Pallet deck boards shall be spaced close enough to provide maximum support to prevent product damage and ensure a safe work environment. (1” Gap). NOTE: Top and Bottom Boards must not overhang side pallet runners.

Mixed Pallet loads are acceptable with like items stacked together vertically, with skid labels listing items and quantity. Heavier items must be placed on the bottom of the pallet.

Product must be contained within dimensions of the pallet. Overhang of product (containers) is not acceptable as this could degrade the packaging, eventually failing and resulting in product damage.

Containers should be placed onto the pallets so that all labels are visible from the ends and skids.

Minimum of two packaging slips shall be secured on the outside of the skid.

Barrels are to be one layer high with lids or cardboard inserts.

All pallets must be heat treated if shipping to GSW TX warehouse.

22.3.4 International Supplier Ocean Shipment/Packaging Specifications

Product (containers) shall be secured inside Gaylord containers, banded to a pallet.

Pallet size shall be equal to dimension of Gaylord containers. Overhang of Gaylord is not acceptable.

Gaylords will be filled to maximum capacity without damage to product. Gaylord lids must be able to rest on Gaylord sides.

Pallet deck boards shall be spaced close enough to provide maximum support to prevent product damage and ensure a safe work environment. NOTE: Top and bottom boards must not overhang side pallet runners.

Mixed Gaylord loads are acceptable. But containers inside Gaylord may not contain more than one product, and heavier items must be placed at the bottom of pallet.

Product (containers) shall be placed into the Gaylords so that all labels are facing outward from the ends and sides.

All shipping documents shall be secured on the outside of the Gaylord and will accompany shipment.

Containers are to be one layer high with lids or cardboard inserts.

22.3.5 International Supplier AIR Shipments/Packaging Specifications

Containers shall be secured to the pallet for air transportation by the use of plastic or metal banding.

Corner posts are to be used when necessary to protect the product from being damaged.

Pallet deck boards must be spaced close enough together to provide maximum support to prevent product damage and ensure a safe work environment. (2" Gap maximum). NOTE: Top and Bottom Boards must not overhang side pallet runners.

Product must be contained within dimensions of the pallet. Overhang of product is not acceptable as this could degrade the packaging, eventually failing, and resulting in product damage.

Product (containers) should be placed onto the pallets so that all labels are visible from the ends and skids.

All shipping documentation shall be secured on the outside of the pallet and will accompany shipment.

Containers are to be one layer high with lids or cardboard inserts.

23 Shipping Instructions

23.1 GSW Preferred Carriers, Delivery & Incoterms

GSW U.S.A suppliers shipping LTL will receive shipping instructions from GSW's preferred carrier.
To ensure our shipments are delivered timely and cost effectively, the following information must be provided to preferred carrier for each shipment:

Ship Date	Estimated Delivery Date	GSW PO#
Shipper Name	Consignee Name	Other Shipment Identifiers
Address	Address	Product Description
City, State Zip	City, State Zip	Class
Contact Name	Contact Name	# of Pallets
Phone #	Phone #	Total Weight
E-Mail Address	E-Mail Address	
Pick Up Hours	Receiving Hours	
Pick Up Requirements	Receiving Requirements	

GSW Supplier shipping terms must be compliant per GSW Terms and Conditions (Appendix QSF-414-1) Third-Party Billing.

Please be advised that if you are a Supplier who will be shipping, freight collect, via LTL or truck carrier to a GSW location other than our Findlay, Ohio, facility, all paperwork and pallets should be addressed and / or marked as listed on the SHIP TO portion of the GSW purchase order.

All Bills of Lading, to any GSW Location, must include the number of boxes and number of skids. The Supplier will be responsible for all reported shortages if the BOL is not complete as required.

23.2 Origin: Domestic U.S.A. Supplier Routing Instructions

Shipment Weight	Carrier	Special Instructions

<table>
<tr><td>Small Packages
1 to 150 lbs.</td><td>FedEx Ground Collect
GSW Account # to be provided by GSW representative</td><td>1. Ship to address noted on purchase order.
2. Consolidate all PO's by each ordering location (OH, MX, GTO) and ship 1 shipment per week.
3. All Supplier PO#'s must be visible on the shipping label.</td></tr>
<tr><td rowspan="2">L.T.L. Shipments defined as 12 linear feet or less and less than 10,000 lbs.</td><td rowspan="2">See preferred carrier shipping instructions above</td><td>1. Consolidate all PO's by each ordering location (OH, MX, GTO) and ship 1 shipment per week. Combining PO's onto a skid is approved if they are for the location that ordered the material. (Example – ABMX-1234; ABMX-4567 can go on same skid)
2. Please ensure the total skids and total boxes are clearly written on the BOL with proper description, NMFC# and class.
3. Product must be shrink wrapped and placed on a good pallet to prevent damages while in transit.
4. If shipping orders to our Ohio cross dock for our 2 MX locations, make sure PO#'s are clearly visible on the outside of the skid.</td></tr>
<tr><td><u>Ship to:</u>
Please refer to ship to address on purchase order.</td></tr>
<tr><td>Truckload, Volume Routing</td><td colspan="2">1. Contact GSW's logistic team if a truckload or volume shipment needs picked up and they will schedule the pickup for you. (GSW Ohio: shipoh@gswiring.com, GSWMX: mcmex@gswiring.com, GSW GTO - materialcontrolgto@gswiring.com)
2. Provide total skids, total weight, is product stackable, pickup hours, Shipper's full address, and Consignee's full address.
3. GSW recommends a 48hr notice for all truckload or volume shipments from the anticipated ship date.</td></tr>
<tr><td>Air or Expedited Routing</td><td colspan="2">4. Contact GSW's logistic team if an air shipment or expedite shipment needs picked up and they will schedule the pickup for you. (GSW Ohio: shipoh@gswiring.com, GSWMX: mcmex@gswiring.com, GSW GTO - materialcontrolgto@gswiring.com)
   1. Provide total skids, total weight, is product stackable, pickup hours, Shipper's full address, and Consignee's full address. For an international shipment we will need a description of the product with HTS code and the declared value of the entire shipment.</td></tr>
<tr><td>Routing Violations</td><td colspan="2"><u>Note to Suppliers:</u>
<u>Routing violations will result in GSW charging back in full, for incorrect routing or unauthorized carrier freight charges, plus a $100 administration fee.</u></td></tr>
</table>

24 The Customs-Trade Partnership Against Terrorism (C-TPAT)

All suppliers/exporters eligible for C-TPAT, an initiative of U.S. Customs and Border Protection (CBP), must demonstrate that they are meeting C-TPAT security criteria at point of origin. Learn more about C-TPAT on the U.S. Customs and Border Protection website http://www.cbp.gov.

All suppliers/exporters who have obtained a C-TPAT certification are required to accept GSW request within the Status Verification Interface via the C-TPAT portal at https://ctpat.cbp.dhs.gov/trade-web. This allows for GSW traceability to your commitment to C-TPAT compliance.

All suppliers/exporters who have obtained a certification in a supply chain program being administered by a foreign Customs Administration are required to indicate their status of participation and provide documentation to iecompliance@gswiring.com.
GSW requires their suppliers/exporters to conduct annual internal Security Self-Assessment followed by corrective actions when security gaps, vulnerabilities and weaknesses are identified.

GSW may conduct or request C-TPAT Compliance Audits by their suppliers or by a qualified third party to ensure compliance. (Appendix QSF-414-4 C-TPAT Security Self-Assessment)

Representative Name (Print)___________________ Title_________________

Authorized Signature_________________________

APPENDICES

GSW Supplier Portfolio Packet Contents:

QSF-414-1 TERMS AND CONDITIONS OF PURCHASE

QSF-414-2 SUPPLIER QUESTIONNAIRE

QSF-414-4 C-TPAT SECURITY SELF-ASSESSMENT

QSF-A-456 SUPPLIER QUALITY CORRECTIVE ACTION REQUEST REPORT

QSF-B-434 SUPPLEMENTAL PURCHASING AUDIT CHECK LIST

QSF-422 CORRECTIVE- PREVENTIVE ACTIONS REQUEST (CAR)

QSF-B-437 GSW MUTUAL CONFIDENTIAL DISCLOSURE AGREEMENT

G.S.W. Manufacturing, Inc.

Supplier Acknowledgement of Receipt
of GSW Supplier Quality Manual and Appendices

Supplier Company Name (Print) ____

Representative Name (Print) ______________________________ Title ______________

Authorized Signature __________________________________ ________Date________

Return signed copy to:
purchasing@gswiring.com

G.S.W. Manufacturing Inc.
P.O. Box 1045
1801 Production Drive
Findlay, OH 45839-1045