



Supplier Quality Manual

Contents

1. SCOPE.....	2
2. BUSINESS COMMUNICATION	2
2.1. DISTRIBUTION.....	2
2.2. CONFIDENTIALITY:	2
3. REFERENCE MATERIAL	2
4. EXPECTATIONS OF THE SUPPLIER.....	2
5. CODE OF CONDUCT	3
6. SFC SOLUTIONS ASSESSMENT & APPROVAL	3
7. QUALITY MANAGEMENT SYSTEM.....	3
7.1. SPECIAL PROCESS AUDIT	3
7.2. CHANGE MANAGEMENT.....	4
7.3. PERFORMANCE EVALUATION.....	4
8. PPAP	4
9. APQP	5
9.1. PASS-THRU CHARACTERISTICS (PTC)	5
9.2. SAFE LAUNCH PROCESS	5
9.3. PRODUCT AND PROCESS FEASIBILITY STUDY	5
9.4. CAPACITY ANALYSIS	6
9.5. TOOL ACCEPTANCE REPORT.....	6
9.6. INTERNATIONAL AND CHINA AUTOMOTIVE MATERIAL DATA STANDARD (IMDS AND CAMDS) AND REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICAL (REACH).....	6
9.7. ANNUAL VALIDATION	7
10. PRODUCT IDENTIFICATION AND TRACEABILITY REQUIREMENTS.....	7
11. RECORD RETENTION	7
12. DEFECTIVE MATERIAL REPORT	7
12.1. CONTROLLED SHIPPING	9
12.1.1 CONTROL SHIPPING LEVEL 1.....	9
12.1.2 CONTROL SHIPPING LEVEL 2.....	10

1. Scope

The intent of this manual is to extend the scope of latest ISO 9001 and IATF-16949 requirements and to include the additional requirements of SFC Solutions. This document defines the basic quality systems and procedures required for suppliers of direct Production, Prototype and Aftermarket parts or services to SFC Solutions and are intended to orient suppliers to these requirements. The supplier's quality system is subject to review and evaluation by SFC Solutions personnel and this document will serve as the basis for such a review. The SFC Solutions plants initiating the purchase orders may provide supplemental requirements.

2. Business Communication

Suppliers shall:

- Communicate all documentation in English.
- Communicate all significant business changes including but not limited to: acquisitions, divestitures, pending litigation, or any activity that may change financial viability in the Supplier's organization.

2.1. Distribution

This document is maintained by SFC at a Corporate level. Compliance to the requirements of this SQM is mandated on the purchase orders. Suppliers are responsible to ensure that they maintain a copy of the SQM. Each supplier is provided online access to the SQM.

2.2. Confidentiality:

All information concerning the relationship between SFC Solutions and its suppliers will be respected as confidential. This includes, but is not limited to, purchase specifications, pricing customer information.

3. Reference Material

- AIAG - Automotive Industry Action Group site where suppliers can find information on APQP, PPAP, PFMEA, MSA, and Special Processes.
- VDA – The German Association of the automotive Industry site where Suppliers can find information on APQP, PPAP, PFMEA, MSA, process and products audits
- IATF 16949:2016 Quality management system requirements for automotive production and relevant service parts organizations
- ISO17025 – General requirements for the competence of testing and calibration laboratories
- ISO 9001:2015 Quality management systems — Requirements
- Purchase Order Terms – SFC Solutions standard PO Terms and Conditions
- Supplier Code of Conduct - Outlines SFC Solutions expectations for supplier's regarding workplace standards and business practices

4. Expectations of the Supplier

Supplier's leadership shall:

- Review, understand and ensure compliance to this manual as a part of doing business with SFC Solutions
- Adhere to all requirements including all Purchase Order Terms and Conditions.

- Confirm agreement to conduct business ethically as outlined in SFC Solutions Supplier Code of Conduct.
- Ensure that SFC Solutions requirements are adequately communicated to their Sub-Tier suppliers

5. Code of Conduct

SFC Solutions employees, Contractors and Suppliers are expected to comply with the latest version of Code of Conduct. Each supplier is provided online access to the SQM.

6. SFC Solutions Assessment & Approval

SFC Solutions personnel and/or customers or the customer's representative has right to verify at the supplier's premises and at SFC Solutions premises that subcontracted product conforms to specified requirements. A "Supplier Audit" is mandatory for all new Suppliers, meaning any supplier who has never before supplied material to any SFC Solutions facility and who is a supplier of high risk or new/key material used. The first phase of the "Supplier Audit" requires the supplier to complete the Supplier Profile form. Based on the information provided, the SFC Solutions Purchasing and / or Quality Department will then decide whether or not a facility review will also be required using the Supplier Audit form.

SFC Solutions has the right to conduct periodic visits at any supplier location that currently does direct and indirect business with SFC Solutions. These visits will be performed by Supplier Quality, Supplier Development, or Plant staff. They will conduct problem visit resolution reviews, APQP/ launch readiness reviews, supplier capacity and over-all supplier performance reviews.

7. Quality Management System

ISO-9001 is defined as minimum acceptable unless otherwise agreed upon by SFC Solutions, with the ultimate goal of certification to IATF-16949. Compliance to the Minimum Automotive Quality Management System Requirements (MAQMSR) for Sub-Tier Suppliers must also be demonstrated as directed by SFC Solutions. Exceptions for certification include pallet, box, bag and other non-production suppliers. Suppliers are likewise expected to be conforming to an environmental management system consistent with ISO 14001. Suppliers will be responsible to update and submit their valid copies of registration certificate to the SFC Solutions Portal. Suppliers who fail a surveillance audit must notify their SFC Buyer immediately. Failure to maintain your ISO9001 minimum certification will result in the removal of a supplier from the Approved Source List, which entail re-sourcing that business the supplier has with SFC. All external labs used for gage calibration and validation testing must be certified to ISO/IEC17025 or national equivalent. Calibration services may be performed by the equipment manufacturer when a qualified laboratory is not available for a given piece of equipment

7.1. Special Process audit

As required by OEM Customer Specific IATF-16949, sub-tier suppliers to SFC Solutions are to have special process audit. The special process audits will include but is not limited to the following:

- CQI-9
- CQI-11
- CQI-12
- CQI-15
- CQI-17
- CQI-23

Suppliers will be responsible to perform annual self-evaluation and submit their annual copies of assessments to the SFC Solution.

7.2. Change Management

The supplier is responsible for providing written communication to SFC Solutions Purchasing of all manufacturing process changes that affect the material(s) being supplied to SFC Solutions. Based on the specific circumstances, SFC Solutions will then evaluate whether or not SFC Solutions can accept the supplier's specification requirements and/or if re-approval is required. This would include the supplier's inability to meet any parameters listed on the SFC Solutions specification.

Examples include any

- A change to the engineering drawing of the product or sub-assemblies; including dimensional, material, or specification changes that may affect fit, form, or function
- A change in the manufacturing process or method that may have an impact to the form, fit, or function of the product, including:
- New, upgrades or rearrangement of modified tooling, dies, and mold patterns, or reintroduction of inactive tools, dies, and mold patterns
- Change in testing or validation method
- Change of sub supplier manufacturing locations

7.3. Performance Evaluation

SFC Solutions considers the following inputs when evaluating supplier performance:

- $DPPB = (Defective\ Units\ Shipped) / (Total\ Units\ Shipped) * 1,000,000,000$
- Third Party Certifications
- VDA 6.3 Process Audit score
- Nonconformance and Corrective Action response time
- PPAP/FAI performance
- $OTD = (line - items\ delivered\ on\ time) / (total\ line - items\ shipped) \%$
- Payment Terms
- Purchase Price Variance

Suppliers shall monitor performance and take action when results do not meet SFC Solutions expectations. Sustained poor performance in conjunction with unacceptable corrective action could potentially result in the removal of a supplier from the Approved Supplier List

8. PPAP

The level of PPAP submission to SFC Solutions always defaults to a Level-3 PPAP submission, unless otherwise specified. The language is English parallel translations are acceptable. The PPAP is at no cost to SFC Solutions, unless otherwise agreed to by the SFC Solutions Purchasing Team. In order to receive full payment related to the specific product being purchased by the SFC Solutions plant the supplier must obtain full PPAP approval from the SFC receiving plant.

Supplier must meet all of the PPAP requirements including the promise date of submission to the SFC Solutions plant in question. PPAP promise dates are established at product launch meetings with the SFC Solutions Launch Teams or Plant Program Management Teams.

It will be the responsibility of the supplier to supply an AIAG / OEM compliant PPAP package. The package will be in accordance with AIAG PPAP Manual, and submitted to the receiving SFC Solutions

plant. The PPAP package will be representative of the final customer format in which the receiving plant will be submitting to its customer. Each of the OEM specific requirements must be in accordance with customer specific requirements and instructions found in the AIAG PPAP Manual.

SFC Solutions receiving plant will inspect the PPAP samples and review the documentation. If the submission is found to comply with all requirements, the Part Submission Warrant (PSW) will be marked approved, signed and returned to the supplier. If discrepancies are found, the submission will be rejected and put on hold until those discrepancies are resolved. The PSW will be marked rejected, signed and returned to the supplier, along with a Supplier Request for Corrective Action form detailing the discrepancies.

With the PPAP submission, the supplier is to include the latest version SFC Solutions PAPP Request letter including PAPP Checklist. For Bulk materials, the supplier is contact the SFC Solutions receiving plant for instructions on how to follow the AIAG PPAP bulk process.

9. APQP

All SFC Solutions suppliers shall utilize and maintain the AIAG Advanced Product Quality Planning (APQP) methods at all stages with the goal of flawless and on time launch.

Reference Manuals:

- AIAG Production Part Approval Process (PPAP)
- AIAG Statistical Process Control (SPC)
- AIAG Measurement Systems Analysis (MSA)
- AIAG Advanced Product Quality Planning and Control Plan manual (APQP)
- AIAG Potential Failure Mode and Effects (FMEA)
- Automotive Quality Management System Standard IATF-16949

9.1. Pass-thru characteristics (PTC)

Pass-thru characteristics (PTC) are supplier controlled characteristics that once generated, are not further controlled or 100% functionally tested / inspected during processing at the SFC Solutions Plant. Non-conformance in these types of characteristics will be passed on to SFC Solutions customers.

Suppliers are required to conduct the following:

- Ensure that PTC's are considered during their APQP activities
- Identify each pass-thru characteristic as PTC on their control plan
- Communicate PTC's to their sub-tier suppliers and require proper control

9.2. Safe launch process

All suppliers must utilize a safe launch process to include product/material certification during initial production runs. The duration of certification and characteristics for certification shall be initiated by the supplier with the SFC Solutions plant at time of PPAP. A minimum of 10000 pcs./part number, 3 months or 10 deliveries whichever takes longer shall be consecutively completed unless otherwise agreed to by the SFC Solutions plant quality, SDE and supplier representatives. Individual part markings or box labeling shall be as instructed by the SFC Solutions plant.

9.3. Product and Process Feasibility Study

The supplier's product quality team must assess the feasibility of the proposed design during their APQP phase of the program. Customer design ownership does not preclude the supplier's obligation

to assess design feasibility. The team must be satisfied that the proposed design can be manufactured, assembled, tested, packaged and delivered in sufficient quantity on schedule at an acceptable cost to SFC Solutions. The supplier's consensus that the proposed design is feasible should be documented along with all open issues that require resolution and presented to SFC for their support.

9.4. Capacity Analysis

The purpose of capacity analysis is to ensure that the supplier's process is capable of meeting PPAP requirements and quoted volumes. Suppliers are required to perform a run at rate / capacity study as part of their PPAP process. The results shall be documented on the Supplier Run at Rate form and submitted as part of the PPAP package. The Safe Launch Process can be included in the Run at Rate assuming it is agreed to by the plant quality function and SFC Solutions SDE representatives.

During a analysis, all production tooling must be in place and running at full capacity, using all processes, personnel, gauging and procedures. The process and controls shall be reflected in the supplier's control plan. The number of components to be produced during the Run @ Rate Capacity will be the same quantity required for PPAP and / or as specified by the purchase order. The results should then be projected to show the results based on an 8-hour production run. Future capacity studies may be requested to the supplier based on volume increases

Installed capacity should cover as minimum nominated quantity + a flex of 15% minimum of annual volume, or according to the final OEM CSRs.

9.5. Tool Acceptance Report

Supplier's responsibility is to complete toll acceptance report for any production tooling/gages that is the property of SFC Solutions and must to submitted as a part of the PPAP process. Acceptance of tools / gauges report includes also ordinary and extraordinary maintenance to guarantee production & spare parts volumes (and required quality level) which is at suppliers' charge.

The purpose for the Tool Acceptance Report is to have a record of the tools/gages built by the supplier or the supplier's vendor. This should assist with the approval process for payment of the tooling/gage. SFC Solutions funded designs, tooling, gages, etc. are to have electronic math data (STEP format) included in the PPAP submission. Two electronic copies of Math Data and two copies of hard copy prints are to be submitted

9.6. International and China Automotive Material Data Standard (IMDS and CAMDS) and Registration, Evaluation, Authorization and Restriction of Chemical (REACH)

All suppliers are required to submit within the appropriate IMDS or CAMDS on-line system all information required to comply with ELV (End of Life Vehicle) requirements. The data must be entered into the appropriate IMDS or CAMDS system at the time of PPAP submission, or earlier if requested by SFC Solutions. An appropriate IMDS or CAMDS screen print showing approval shall be supplied with the PPAP package.

For regions utilizing Registration, Evaluation, Authorization and Restriction of Chemical REACH, the supplier is responsible to fulfill all REACH requirements.

9.7. Annual Validation

All product characteristics must be measured annually at a minimum to ensure continuing conformance to the drawing, material and specifications for all parts and services provided to SFC Solutions. Annual validation records and Current Laboratory Certificates are to be retained at the supplier location and made available upon request. This requirement applies to all drawing, specification and purchase order requirements unless otherwise waived by an approved deviation.

The results of dimensional inspection, material and functional testing must be documented using the sequence of the numbered blueprint from the PPAP submission. Supplier forms are acceptable but must be in English.

Notes:

- Certifications of Compliance are not acceptable.
- Annual Validation is at no cost to SFC Solutions.
- Based on SFC Solutions specific customer requirements, additional documentation may be required. If additional items are needed, this will be communicated to the supplier.

10. Product Identification and Traceability Requirements

SFC Solutions requires the supplier to establish and maintain procedures for identifying the production lots from receipt of raw material through shipment of final product. This system should permit the segregation of suspect material, and the reporting of quality and production data, based upon the unique bar code label on each container supplied to SFC Solutions Plant.

11. Record Retention

Record Retention Records need to be retained at the supplier, according to the final OEM CSRs or other legal authority

12. Defective Material Report

Defective material report will be issued against supplier if product (bulk, raw, component, assembly, etc.) has been determined to not meet SFC and/or final customer requirements. Reason may include but no limited to :

- dimensional,
- appearance,
- fit,
- form,
- function
- not meeting the engineering specifications
- foreign material present in the product,
- damaged material,
- incorrect material shipped,
- short shipments,

- mislabeling,
- packaging,
- PPAP,
- failure to maintain annual validation records,
- safety issues,
- launch,
- late corrective action responses,
- missing/expired required upload documents,
- non-responsiveness

The origin of the reject can occur at any process step or product life. Suppliers to SFC Solutions will be responsible for costs incurred due to the supply of defective material. The supplier is responsible for replacing non-conforming material in a timely manner to meet SFC Solutions delivery requirements. Collateral costs incurred by SFC Solutions as a result of Supplier failure to meet quality requirements will be assessed.

Examples of such costs are as follows:

- Sorting
- Line disruption / speed reduction
- Premium freight
- Premium product cost paid to support production
- Overtime
- Outside processing & testing required
- Rework i.e. labor, tooling, and fixturing
- Scrap
- Reimbursement of all charges from customer, including re-call campaign costs
- Added inspection certification of product, etc.
- Warranty costs
- Onsite verification audits

Additional associated costs as a result of the non-conformance may be charged back to the supplier.

A 200€ Administration Fee (Excluding VAT and GST) shall be charged to Suppliers for each DMN issued due to a non-conformance, regardless of the value of the rejected lot received or the quantity of parts being rejected.

Corrective action shall be executed in accordance with the following timeline from the Supplier's receipt of Defective material Report:

8D steps		8D exit criteria	Duration*
D0/D3	Immediate Actions implemented	Containment - Breakpoint	24 h
D4	Root Cause Analysis	Root Cause Identified	7 D
D5	Corrective Actions	Corrective Action(s) implemented	14 D
		Error Proof/Detection	
		Layered Process Audits	
D6	Effectiveness of Corrective Actions	Corrective Action Validated	34 D
D7		Standard Work Operator Instructions	35 D

	Systemic Actions implemented	PFMEA / CP Updated	
		Lessons Learned (Read across issued)	40 D
D8	Claim closed		

*Duration according to OEM CSR's.

If more time is needed, please address/confirm with the SFC Solution representative

Corrective action shall:

- Focus on system level improvements to prevent reoccurrence within the organization.
- Utilize a disciplined closed loop problem-solving method that works to encompass all possible outcomes.
- Be submitted to SFC Solutions for review and approval.
- As a general rule "Operator Error" or "Training needs" are not root causes
- Acknowledge that retraining is insufficient and further actions shall be taken to error proof.
- Ensure all quality system documents, work instructions, maintenance plan affected are updated to accurately reflect the changes.

12.1. Controlled Shipping

The purpose of the containment is to ensure only conforming product is shipped uninterrupted to SFC Solutions plants. Controlled shipping is a requirement for a supplier to implement a redundant inspection process to sort for non-conforming material resulting from ineffective supplier process controls. Controlled shipping must become a corrective action process, not just an inspection process. The redundant inspection is in addition to normal controls. In addition to providing defect free product, controlled shipping results will help identify system failures and in-effective corrective actions previously taken. Suppliers required to implement either a Level 1 or 2 containment shall be notified via email or in a formal letter by the SFC Solutions plant.

SFC Solutions makes the determination whether the supplier can effectively correct the nonconforming material situation through the problem solving process and isolate the end customer from the problem. One or several of the following may be considered for implementation of Control Shipping:

- Excessive issuance of DMN/CONCERNS to the same supplier
- Repeat DMN/CONCERNS for the same component or component family
- Duration and severity of the problem
- Incapable processes
- Inability to show Improvement within IQR (in-coming quality review) process (typically 60 days invoked)
- Impact on SFC's Customer
- Severity of quality problem
- Inadequate containment and/or resolution of nonconformance via the DMN Process.
- Major Disruptions at either SFC plant or SFC's customer
- APQP, Safe Launch, PPAP and / or Launching problems

12.1.1 Control Shipping level 1

Level 1 includes a problem solving process as well as a one additional redundant inspection process. The supplier is required to perform a 100% certification using an additional off line inspection process,

of all products prior to shipment to SFC Solutions Plant. This certification shall be over and above the present controls in place and may be assigned to and managed by the supplier or a designated SFC Solutions third party source – this will be dependent on the severity of the issue (i.e. safety related etc.). the cost in either case will be the responsibility of the supplier. The inspection process is enacted by the supplier’s employees at the supplier’s location to isolate SFC Solutions from receipt of nonconforming parts/material. As defined by SFC Solutions, the supplier and /or SFC Solutions third party shall clearly identify each container to identify that it has been undergone Level 1 certification. As defined by SFC Solutions, each individual part may be required to be marked to show certification. Exit criteria may be reliability based in that a minimum quantity shall be inspected or number of weeks with no nonconformance found – or unless otherwise defined and agreed to by the affected SFC Solutions plant. Either may cause for satisfying the CS1 exist criteria and must be approved by the SFC Solutions plant quality manager and SFC Solutions SDE functions.

12.1.2 Control Shipping level 2

Level 2 includes a problem solving process as well as two redundant inspection processes. First by the supplier per level 1 above, then if necessary, by a separate 3rd party company. The supplier is required to contract with a SFC Solutions directed 3rd party to certify and inspect off line all products prior to shipment to SFC Solutions. Level 2 containment is imposed on a supplier when level 1 is not successful (if done by the supplier), early production issues, or as deemed necessary by SFC Solutions. The third-party sorting company is selected by SFC Solutions and paid for by the supplier. In special cases, the Level 2 Controlled Shipping inspection may be required to be performed outside the supplier’s facilities at a location defined by SFC Solutions. Suppliers are required to notify their registrar when place on Level 2 containment. As defined by SFC Solutions, each individual part may be required to be marked to show certification. Exit criteria may be reliability based in that a minimum quantity shall be inspected or number of weeks with no nonconformance found – or unless otherwise defined and agreed to by the affected SFC Solutions plant. Either may cause for satisfying the CS2 exist criteria and must be approved by the SFC Solutions plant quality manager and SFC Solutions SDE functions.

Revision History

Date	Revision	Author / Dept	Approved By	
March 2021	0	Original Release	M. Wojciechowski	Francois Mouton



Supplier Quality Manual

Agreement Between
SFC Solutions (Hereafter referred to as the "SFC")
And

(Hereafter referred to as the "Supplier")
Quality Manual Version: _____

This agreement is made between the above named parties in order to assure the quality of supplied product(s) or service(s).

This is confirmation of receipt and agreement. Any deviations to the Supplier Quality Manual made by the Supplier must be approved by SFC in advance, submitted in writing and attached to this confirmation. This Quality Agreement replaces all previous quality agreements.

Supplier
Signature _____
Print name _____
Title _____
Date _____

	SFC Commodity Manager	SFC Supplier Development
Signature	_____	_____
Print name	_____	_____
Title	_____	_____
Date	_____	_____