



SERVICE Rubber Group, Inc.

Quality Control Manual

A Division of GREN Industries, Inc.

08/01/2009

Volume 1, Issue 6

Quality Molder, Extruder and Fabricator of Industrial Rubber Products

Preface

Statement of Policy

Service Rubber Group, Inc. shall comply with the requirements of military specification MIL-I-45208, “ inspection system requirements,” and with customer requirements. A quality program has been established and documented in this manual to implement this policy. Conformance to these requirements has the full support of management and will be met by all concerned employees as specified in this manual.

Statement of Authority

The quality manager and/or his designated quality representatives have the authority and responsibility for actions necessary to see that all material, items, and operations are in accordance with the above policy and this manual. The quality manager or his designated representatives have the right to stop any operation that is not in compliance with the specifications and customer requirements.

Statement of Manual Use

This manual shall be the working manual used to control work to meet the requirements of MIL-I-45208.

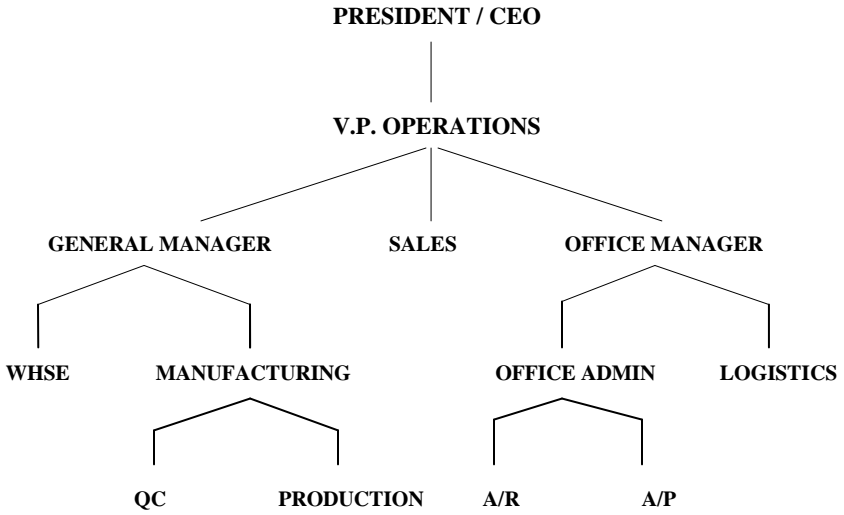
Approved:

Brian E. Greninger

Date

SERVICE RUBBER GROUP, INC.

ORGANIZATIONAL CHART



INTRODUCTION

Basis

All procedures, instructions, and directions set forth in this manual are in accordance with, and conform to the requirements of military specification MIL-I-45208, entitled, "inspection system requirements." This manual is written to establish a system of surveillance of product quality from receipt through shipment. This manual will also be the source of instruction to all concerned personnel on how to perform the functions necessary to satisfy the requirements of the specification and the customer.

Responsibility and Authority

The QC manual is prepared, issued, and maintained by the QC manager. It is reviewed, at least annually, by the QC manager for needed changes. Changes are documented, and after internal approval, are submitted to the applicable customers for their approval. Copies of their acceptance are placed on file and the manual changes are issued.

Manuals are either issued as controlled manuals, with the manager of quality maintaining a distribution record, or as uncontrolled copies distributed for information only. Holders of controlled copies are automatically sent all approved revisions and are responsible for incorporating them in their manuals.

A QC manual revision history sheet will be a part of the manual. When contractual reference is made to a specific revision of this manual, the revision becomes a part of that contract. That revision cannot be changed without contractual authority.

QUALITY ASSURANCES

Scope

Utilizing the instructions, procedures, and information provided by the quality control manual, Service Rubber Group, Inc., personnel will monitor and maintain control of product quality in product quality in the following areas:

- Tooling and Gauges
- Purchased Material
- Material Control
- Document Control Inspection and Testing Equipment
- Customer Furnished Material
- Government Furnished Material
- Preservation and Packing
- Packing and Shipping

Quality Records

All required quality forms, records, and reports that provide documentary evidence of compliance with contractual requirements and provide tracking and historical record of quality functions will be filed and maintained in the QC documentation control area.

At a minimum, this will include:

- Certified Material Test Reports
- Certificates of Conformance
- Non-Destructive Test Reports
- Inspection Reports
- Tool and Instrument Calibration Reports
- Quality Instructions
- In-Process Customer Drawings and Specifications
- Quality Manual Distribution Records

Indications of Inspection Status

Service Rubber Group will maintain records of all inspections performed; from receiving inspections through final inspection and acceptance. Each inspector will sign (or stamp) and date the quality portion of the report to indicate that particular inspection has been performed. Records of all inspections will be retained in the closed order files for a minimum of two years, or as required by the customer specifications.

Inspection Provisions

Until such time as alternate inspection procedures and equipment are deemed necessary, Service Rubber Group will utilize the procedures and equipment needed to provide the quality assurance required in the contractual documents.

Government/Customer Inspection

In the event that Service Rubber Group issues a purchase order or contract that requires government/customer inspection at our plant or at a vendor's plant, the government/customer inspector will be provided free access to the areas of the plant concerned with government/customer work, either at Service Rubber Group or its vendor's facilities. When required, the contractor's testing and measuring equipment will be made available to the government/customer inspector or representative.

RECEIVING/MATERIAL FLOW

Receiving Instruction

All incoming items are received and listed on the receiving report. The items, along with the related paperwork, are given to QC for inspection. The quality inspector verifies that the item corresponds with the purchase order requirements. The item is checked for damage, completeness, and certificates, if applicable. Dimensional checks are made, as necessary. Copies of all vendor supplied documentations are attached to quality's copy of the receiving report and filed. If found applicable, the item is released for storage or production. If rejected, a non-conformance report is initiated, the material is tagged and moved to a hold area to await disposition action. If a non-conformance is discovered during receiving inspection of a supplier's product that has had government source inspection, the non-conformance shall be reported to the government representative. The supplier shall be required to coordinate with the government representative on corrective action.

Material Control

Raw Materials:

All raw materials accepted by receiving inspection, in accordance with the manual, will go to production for immediate processing or to storage for later processing. All raw material in storage will be identified as to type, condition and/or the job number for which it was received.

Customer Furnished Material:

All CFM accepted by receiving inspection will go to production for immediate processing or to storage for later processing. While in storage, it will be identified CFM and segregated from other material to prevent inadvertent use.

Government Furnished Material:

All GFM accepted by receiving inspection will go to production for immediate processing or to storage for later processing. While in storage, it will be identified as GFM and segregated from the other material and protected from improper, unauthorized, or inadvertent use or disposal.

Storage Area:

Storage will be provided all material to assure adequate protection and prevent contamination and damage.

Stock Room:

All detail parts shall be given environmental protection and stored in a manner to prevent damage and deterioration. They will be identified as to part number and date of manufacture. Material or parts having a shelf life will be so identified. In the event the shelf life expires, it will be removed from stock and handled as scrap.

Drawings and Changes:

QC will control the receipt, storage, changes, and issue of engineering drawings. QC will keep the drawings up to date by attaching the changes to the drawings as received and removing the drawings as they become obsolete.

Purchasing:

All vendors, or suppliers of goods or services, for controlled contract work must be able to assure product quality that conforms to the applicable program specifications. SERVICE Rubber Group will utilize and maintain an approved vendor list and will monitor the supplier's ability to provide quality product.

The quality control manager will determine what material or services are necessary, from drawings and engineering requirements. A purchase order is issued showing clearly:

- A. Type or grade of material
- B. Physical properties required
- C. Dimensions
- D. Chemical analysis

The PO must indicate if a certificate of conformance or a certified material test report is to be furnished upon delivery. Material requiring special processes such as heat treat, anodizing, etc., the applicable military or customer process specification shall be specified. The PO is to be reviewed by quality control for acceptability, accuracy, completeness, and compliance with specifications prior to release.

QUALITY INSPECTION/STAMP PROCESS

First Article Inspection:

When required by customer purchase order, first article inspection (FAI) shall be conducted on articles supplied in the first lot of a new order.

The FAI requirements shall be performed by SERVICE Rubber Group and are applicable to detail parts, sub-assemblies and assemblies.

Each dimension, material requirement, and all other requirements of the drawings and specifications shall be checked, verified, and recorded.

A first article inspection report shall be generated and contain the following information:

- A. Name And location of supplier
- B. FAI report number
- C. Part name and number, revision, lot and serial number applicable
- D. Date FAI conducted
- E. Signature of authorized SERVICE Rubber Group Rep.
- F. List of drawings and specifications used
- G. List of inspection equipment used, including name, I.D. number, date of calibration and calibration due date
- H. Description of all discrepancies found
- I. Description of corrective action taken

If required, the FAI will accompany the initial shipment of that particular part.

Inspection Stamp Control:

QC personnel may be issued serialized inspection stamps, identifiable to the inspection person, for use on paperwork. The stamps may be used in place of a signature to indicate acceptance/rejection only by the person to whom the stamp was originally issued. A record of each stamp issued to a QC person will be maintained on our issue signature card by the quality manager. Inspection stamps will be removed from service when that particular QC person terminates, or the stamp is lost. A stamp removed from service will be impounded for a minimum of three months.

Inspection Stamps:

The Following type of stamps are used to indicate the quality status of material, detail parts, and assemblies.

Non-Conforming Material:

Material that does not conform to the program requirements will be immediately identified and moved to the QC hold area. The material will be tagged with a red stop-work tag to indicate the status of the material, such as: awaiting material review, awaiting rework, repair, return to vendor, or scrap. A non-conformance report will be generated with the item number, the drawing number, the description of their non-conformance, the lot or job number, and the inspector's signature (stamp) and date. The non-conformance report number will be referenced on the red stop-work tag and on the route sheet. The NR is given to the quality manager for review and disposition processing. Formal disposition action will be requested of the Government/Customer representative, if applicable. The nonconforming material will remain segregated in the QC hold area to prevent use, shipment, and intermingling with conforming material until disposition instructions are received. QC will indicate the government/customer disposition instructions on the original non-conformance report and proceed with the disposition. If the disposition is scrap, the item is destroyed or mutilated and removed from the hold area. If the disposition is "use as is," the authenticity is so noted on the NR, and the item's red stop-work tag is removed and the item is returned to production.

If the disposition is re-work or repair, the operation will be performed to written instructions. The non-conforming item is released from "stop work" by QC with written instructions on the non-conformance report or the route sheet. When the re-work or repair is completed and accepted, the item is allowed to continue processing. All disposition authorizations, repair, or re-work procedures, and related inspections are cross-referenced to the item and become a part of its paper work back-up data in the QC file.

Corrective Action:

Corrective action is indicated as soon as excessive errors, repetitive discrepancies or consistent non-conformances are discovered. All deficiencies are recorded on the non-conformance report (NR). The quality control manager reviews and monitors the NR for repetitions and for the need for changes or preventative actions to preclude recurrence. If such action is necessary, investigation into cause and corrective action is undertaken by the quality control manager. Corrective action recommended is documented on the NR; a copy of the NR is returned to the supplier for review and rework or replacement of the non-conforming parts. After the recommended action has been taken, it will be inspected and signed off by the quality control manager. Copies of all reports will be filed in the quality control documentation area.

Customer Corrective Actions:

In the event that the customer representative issues a discrepancy and corrective action report, the SERVICE Rubber Group quality control manager will complete the required portions: namely, the cause of discrepancy and corrective action taken, along with the effective date, and return the completed and signed report to the customer quality control office within five (5) working days.

Application of Stamps

If blueprint or customer specification designates a specific area on the part of stamping, it shall be applied as specified.

If no specific area is designated, the stamp shall be applied as close as possible to the part or assembly number.

If it is impossible or impractical, to apply the stamp as stated above, the stamp may be applied to a tag, label, or container affixed to, or holding, the part.

Stamps shall be kept clean and legible.

All material, parts, or assemblies must show evidence of quality acceptance prior to shipment or storage.

CALIBRATION SPECIFICATION

Calibration Control System:

The following records and recall system are maintained by QC. A fifty-two week active file contains a control card for each active tool, gage and equipment in use. All inspection cards are filed by quarters of a year. Each quarter year is identified by specific color code. This code system identifies the re-inspection due date for each item. A due for calibration file contains the cards for each item due for calibration that has not yet been accomplished. Each piece of equipment in this category will have been placed in a "do not use" status by QC. Each inspection record card file denotes the established acceptable tolerance range. This range has been established based on standard industry practice with due consideration given to the product being manufactured. Reviews and adjustments may be required should the product requirements and/or sufficient trends develop.

Calibration Recall Color Code:

All calibrated equipment will be identified with an inspection sticker which identifies the person performing the inspection, the exact date performed and a color band which indicates when the next re-inspection is due.

Calibration of Items:

Each quarter year QC will perform the following:

- A. Review the card file and recall those items due.
- B. Calibrate the items or send to appropriate calibration facility for calibration in accordance with MIL-STD-45662.
- C. Notifies the necessary parties if equipment is found to exceed the acceptable limits of accuracy, so prior work can be recalled and re-inspected as necessary.
- D. Attaches the proper calibration sticker to the item.
- E. Places the item's card in the appropriate place in the card file for next recall.

Out of Calibration Items:

When an item is found to be out of calibration or defective, it will be immediately tagged and removed from service.

An out of tolerance is any measurement which is more than 10% above or below the nominal measurement of the gauge/instrument or as specified by the customer.

PACKAGING AND SHIPPING PROCEDURE

The shipping clerk will:

- A. Check that the final inspection and acceptance report is complete and approved.
- B. Check packaging required.
- C. Identify the parts to the paperwork.
- D. Count the parts for quantity correctness against original requirements.
- E. Include the required documents.
- F. Check the customer/vendor address for correctness and completeness.
- G. Package in accordance with instructions.

Packaging is performed to the extent necessary to protect the item during transit. Preservation required on particular items will be in accordance with the special instructions provided.

Marking will be in accordance with contract instructions.

Shipping will be by standard methods, unless otherwise specified in the contract.

REVISIONS TO QUALITY CONTROL MANUAL

<u>DATE</u>	<u>REASONS FOR REVISION</u>	<u>APPROVED BY:</u>
2/22/93	New Manual	James M. Kiper, QC Manager
4/03/96	Change in calibration procedure procedure to reflect real-time activity	James M Kiper, QC Manager
3/24/04	Update C o f C	Christopher Bell QC Manager
8/09/06	Update C o f C	Bryan S. Tyler QC Manager
3/29/09	Update C o f C	Marty A. Nelson QC Manager

TABLE II-A—Single sampling plans for normal inspection (Master table)

(see 4.9.3 and 4.9.4)

Sample size and lot size	Acceptable Quality Levels (normal inspection)																										
	0.01	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000	
A	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
C	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
D	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
E	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
F	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
G	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
H	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
I	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
J	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
K	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
L	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
M	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
N	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
O	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
P	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
Q	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
R	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

→ Use final sampling plan unless noted. If sample size equals, or exceeds, lot or batch size, do 100 percent inspection.

→ Use first sampling plan above arrow.

→ Acceptance number.

→ Rejection number.



SERVICE Rubber Group, Inc.

RECEIVING REPORT

DATE _____

INSPECTED BY _____

PURCHASE ORDER # _____

PART NUMBER _____

CARTON NO. **VISIBLE DAMAGE** **QUANTITY STATE** **QUANTITY ACTUAL**

CARTON NO.	VISIBLE DAMAGE	QUANTITY STATE	QUANTITY ACTUAL

APPROVED _____

A DIVISION OF GRIN INDUSTRIES

Post Office Box 701411 * Dallas, Texas 75370-1411, USA * Phone 972-881-2606 * Fax 972-881-2605

SERVICE Rubber Group, Inc.

CERTIFICATION OF CONFORMANCE

WE HEREBY CERTIFY THAT THE PARTS LISTED BELOW WERE MANUFACTURED OR PROCESSED TO THE FOLLOWING SPECIFICATIONS:

SOLD TO

JOB NUMBER: DATE:		
CUSTOMER ORDER NUMBER	PURCHASE ORDER LINE ITEM	QUANTITY
PART NUMBER (P/N)		PN REVISION LEVEL
MATERIAL AND SPECIFICATION		
FINISH		
HEAT TREAT	OTHER	

- I. WE CERTIFY THAT THE CHEMICAL AND OR PHYSICAL TEST REPORTS OR OTHER EVIDENCE OF CONFORMANCE TO APPLICABLE SPECIFICATION COVERING ALL MATERIALS IN THE ABOVE PART ARE ON FILE SUBJECT TO EXAMINATION WHERE REPORTS ARE REQUESTED.
- II. WE CERTIFY THAT THESE PARTS WERE PRODUCED IN ACCORDANCE WITH SPECIFICATIONS REFERENCED OR FURNISHED BY THE BUYER ON THE ABOVE PURCHASE ORDER AND WE HAVE AVAILABLE FOR EXAMINATION CERTIFICATIONS OF CONFORMANCE TO APPLICABLE SPECIFICATIONS.

Bryan S. Tyler

AUTHORIZED SIGNATURE QUALITY CONTROL

TITLE

DATE

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SERVICE Rubber Group, Inc.

NR No. _____

NON-CONFORMANCE REPORT

Rec.

Stock

Part Number	Description	Date		
Vendor	P.O. Number	Qty Rec'd	Qty Insp	Qty Rej'd
Dwg. #	Lot #			

Details of Nonconformance

Drawing (If Applicable)

ACTION TO BE TAKEN

QTY	FINAL ACTION	VENDOR INFORMATION	
	CREDIT AND REPLACE	RETURN AUTHORIZATION NO.	
	CREDIT ONLY	BY:	DATE:
	REWORK AT VENDOR EXPENSE	RETURN ADDRESS:	
	REWORK AT SRG EXPENSE		

APPROVED BY:

TITLE:



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