

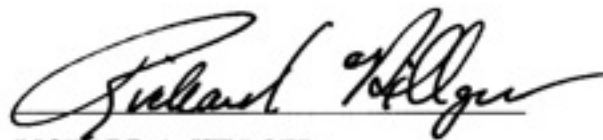
**PAUL MACHINE
QUALITY CONTROL MANUAL**

1.0 SCOPE

- 1.1 This manual establishes the requirements for PAUL MACHINE CORPORATION inspection systems and process controls. These requirements pertain to the inspections and tests necessary to substantiate product conformance as required by contract. This manual outlines the quality control system maintained by PAUL MACHINE CORPORATION.

The system has been designed to provide quality control coverage and insure conformance with purchase document requirements. The procedures contained herein shall be maintained on a current basis and revisions to the manual will be made as agreed upon between the company and the customer or Government representative.


BARRY FELDMAN, PRESIDENT


RICHARD A. HILLGER,
QUALITY ASSURANCE MANAGER

DATE JAN 04 2010

PAUL MACHINE QUALITY CONTROL MANUAL

2.0 DOCUMENTATION AND RECORDS

- 2.1 The inspection documentation activities shall be directed to insure that contractual and quality requirements are maintained throughout all phases of manufacture and processing. All contracts shall be reviewed, accepted by Quality Control, and a WORK ORDER / SHOP TRAVELER initiated for production services. The SHOP TRAVELER must be checked by Quality Control.

The WORK ORDER / SHOP TRAVELER will include the following information:

- (a) Customer name
- (b) Drawing number and latest revision
- (c) Number of units in lot
- (d) Operations to be performed
- (e) Inspection points (Receiving, In-Process, Final) to verify raw material and material control number
- (f) Special instructions per purchase order or specification requirements
- (g) Work order number

PAUL MACHINE QUALITY CONTROL MANUAL

The WORK ORDER / SHOP TRAVELER shall have a space for an inspection signature and all inspections shall be performed. Upon completion of a WORK ORDER, final inspection will be documented on the WORK ORDER / SHOP TRAVELER. Any unauthorized deviation from the WORK ORDER / SHOP TRAVELER requirements shall result in the stopping of all work remaining in the WORK ORDER processing until the deviation has been corrected by rework or MRR action. All work orders shall be stored for a minimum of four (4) years or for as long as the customer requires.

2.2 The Purchase Requisition Form is used to describe purchased material or service type, size, quantity, source, price, delivery date, date ordered, shop order number, and detail number if applicable. Procedure as follows:

- (a) Original copy to master office file
- (b) Second copy to receiving desk

Upon receipt of material, all information described on purchase requisition is compared to incoming shipping documents and the physical properties of the material.

When purchase requisition form is complete as ordered, it is signed by receiving personnel, dated, and turned in to office manager.

PAUL MACHINE QUALITY CONTROL MANUAL

3.0 CORRECTIVE ACTION

- 3.1 Prompt corrective action shall be taken to correct all conditions that cause non-conformance. Corrective action shall be directed at deficiencies in meeting item specification requirements and all other inspection and testing requirements necessary to substantiate quality within the purchase document requirements. Corrective action shall be documented by use of MATERIAL REJECTION REPORT (MRR) Form Number 1 (Page 22) and to the extent necessary to insure results and continuity.

4.0 DRAWINGS AND CHANGES

- 4.1 Operations shall insure that the latest applicable drawings, specifications and instructions required by contractual agreement are used in the manufacture and processing, inspection, and testing of the end item. Changes received after work is in progress shall be reviewed and incorporated at the proper time or unit / lot number agreed upon by PAUL MACHINE CORPORATION and the customer. WORK ORDERS shall reflect the change, the revised configuration and the effective date. PAUL MACHINE CORPORATION Quality, Engineering and Purchasing Departments shall review all changes for effect and assign the effective date, part, or lot number. Customer concurrence upon effectivity will be required by the PAUL MACHINE CORPORATION Purchasing Department.

PAUL MACHINE QUALITY CONTROL MANUAL

5.0 IMTE (INSPECTION MEASURING AND TEST EQUIPMENT)

- 5.1 Calibration and inspection of measuring equipment shall be in accordance with PAUL MACHINE CORPORATION Gage Calibration System. In order to insure continued accuracy, these devices shall be calibrated at established intervals against certified standards that have a known valid relationship to National standards. All gage, testing, and measuring devices shall bear a label to give visual indication of the date of verification and the due date for recalibration. This label shall be signed and dated by the authorized inspector assigned to calibrate equipment and shall indicate the due date of recalibration. The calibration record shall contain the same signature and date. Inspection equipment not in use shall be so labeled.
- 5.2 All tools used for acceptance of the product, whether company owned, operator owned or customer / Government furnished shall be periodically calibrated against standards of a higher level with traceability to the N.I.S.T. A record shall be maintained for each item and will show the following history:
- (a) Instrument name
 - (b) Type
 - (c) Manufacturer
 - (d) Control number
 - (e) Calibration frequency
 - (f) Calibration date

PAUL MACHINE QUALITY CONTROL MANUAL

- (g) Next due date
- (h) Acceptance by inspector noted

5.3 The following items shall be inspected, tested or otherwise processed in order to maintain the approved standards for each designation. A standard laboratory that meets industry requirements shall calibrate all items that cannot be calibrated by PAUL MACHINE CORPORATION.

- | | | |
|-----|----------------|------------------|
| (a) | Height gauges | Annually |
| (b) | Verniers | Annually |
| (c) | Micrometers | Annually |
| (d) | Depth gauges | Annually |
| (e) | Surface plates | Every Other Year |
| (f) | Gauge blocks | Every Other Year |

PAUL MACHINE QUALITY CONTROL MANUAL

6.0 CUSTOMER AND GOVERNMENT FURNISHED TEST EQUIPMENT

- 6.1 Immediately upon receipt of customer or Government furnished equipment, an examination for damage in transit, completeness and proper type shall be performed.
- 6.2 Periodic inspection, testing, etc., shall be performed per Paragraph 5.2 on all customer / Government furnished test equipment or tooling.
- 6.3 All damage or non-conformance of materials and / or equipment shall be immediately reported to the respective representative for review and disposition.

7.0 NON-CONFORMING MATERIAL

- 7.1 Any material or tooling found to be non-conforming shall be segregated and identified as withheld. The method of identification shall be by RED TAG (Page 23) attached to either the part / assembly or the container. The tag shall show a brief statement explaining the non-conformance. After tagging, the material or tooling shall be placed in the Bond Area pending final disposition.
- 7.2 The information shall be transferred to the MATERIAL REVIEW REPORT (MRR) Form Number 1 (Page 22) and all information as to cause and corrective action shall be supplied before final disposition is requested.
- 7.3 When rework is specified as the final disposition on the MRR, a GREEN TAG (Page 23) shall be attached to the RED TAG. The GREEN TAG shall specify the rework to be

PAUL MACHINE QUALITY CONTROL MANUAL

accomplished, and acceptance of rework shall be by the inspector signing and dating the MRR in the space provided.

- 7.4 A new work order / shop traveler shall be released to accomplish the rework designated on the MRR. The completed shop traveler shall indicate completion of the rework and remain with the part or assembly. The completed MRR will be filed with the Master record.

8.0 CUSTOMER REPORTED NON-CONFORMING MATERIAL

- 8.1 The PAUL MACHINE CORPORATION Quality Department shall be held responsible for all investigating non-conformities reported by PAUL MACHINE CORPORATION customers. It shall investigate for cause and shall determine corrective action necessary to prevent recurrence.
- 8.2 The PAUL MACHINE CORPORATION Quality Department shall provide replies to customer non-conformance documents when required. Replies shall contain cause, corrective action and date of corrective action.
- 8.3 PAUL MACHINE CORPORATION shall not assume responsibility for customer reported non-conformities unless (a.) the materials (parts) are returned, or (b.) PAUL MACHINE CORPORATION has the same non-conforming material in plant, or (c.) tooling that reflects the same nonconformity. On occasion, review of purchase documents, drawings or specifications will provide information that will establish responsibility.

PAUL MACHINE QUALITY CONTROL MANUAL

- 8.4 All non-conformities dispositioned by MRR and all customer reported non-conformities for which PAUL MACHINE CORPORATION is responsible, shall require mandatory corrective action follow-up by the Quality Department.
- 8.5 Reworkable dispositioned parts must be accompanied by the MRR.

9.0 SAMPLING INSPECTION

- 9.1 When sampling inspection is specified by the customer, MIL-STD-105D or customer directed sampling method will be used by PAUL MACHINE CORPORATION Quality personnel.
- 9.2 First article inspection shall be performed on all first run parts or assemblies to assure configuration to drawing and purchase document requirements. The first article report, when required by purchase order, shall become a part of the contract documentation and will remain in the master work order file.

10.0 INSPECTION AT SUBCONTRACTORS

- 10.1 The Government reserves the right to inspect at source suppliers or services not manufactured or performed within the contractor's facilities. When Government inspection is required, the customer shall add the following statement to the purchase document:

PAUL MACHINE QUALITY CONTROL MANUAL

“Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government representative who normally services your plant so that appropriate planning for Government inspection can be accomplished.”

- 10.2 When, under authorization of the Government representative, copies of the purchase document are to be furnished directly to the Government representative by PAUL MACHINE CORPORATION, the contractor shall add to his purchase document a statement worded substantially as follows:

“On receipt of this order, promptly furnish a copy to the Government representative who normally services your plant or, if you do not have one, to the nearest Army, Navy, Air Force or Defense Supply Agency Inspection Office. In the event the representative or office cannot be located, our Purchasing Department should be notified immediately.”

11.0 RECEIVING INSPECTION

- 11.1 The Receiving Department shall be responsible for the inspection of customer products. All received materials shall be inspected as necessary to insure conformance with requirements of purchase document. Periodic testing of materials will be performed when specified on contract.

PAUL MACHINE QUALITY CONTROL MANUAL

- 11.2 Non-conforming materials shall be handled as noted in Paragraph 7.0, identified with RED TAG and held in bond until final disposition is made.

12.0 IN-PROCESS INSPECTION

- 12.1 In-Process inspection shall be accomplished as directed by the Quality Department and noted on the SHOP TRAVELER. Inspections shall be performed during the processing or manufacture of parts / assemblies with contract requirements.

13.0 FINAL INSPECTION

- 13.1 Final inspection shall be performed on all items to provide assurance of conformance to purchase document instructions.

14.0 SHIPPING INSPECTION

- 14.1 Shipping Inspection shall be responsible for compliance to good commercial packaging or other protection as specified by the customer or the purchase document.
- 14.2 Shipment of Government contracts shall be provided by an approved source with Government representative knowledge and approval. The source shall mark, package and ship per contractual requirements and Paragraph 7.0 of this manual.

PAUL MACHINE QUALITY CONTROL MANUAL

15.0 STOCK CONTROL

15.1 It shall be the responsibility of PAUL MACHINE CORPORATION Quality Department to determine that all stock, stock handling and issuance are accomplished in a proper manner.

16.0 PROCEDURE

16.1 It shall be the responsibility of the Quality Department personnel assigned to the receiving inspection function to audit material stores periodically for the following:

- (a) Proper material identification
- (b) Presence of material control number
- (c) Proper storage (i.e. refrigeration) to prevent:
 - (i) Damage
 - (ii) Corrosion
 - (iii) Deterioration of perishable materials
 - (iv) Over-aging of age-controlled materials or compounds

PAUL MACHINE QUALITY CONTROL MANUAL

- (d) Evidence that materials (especially age-controlled ones) are being issued on a first in, first out basis
- (e) Inter-mixture of controlled and commercial materials
- (f) Condition of housekeeping in area

17.0 AGE CONTROL OF DATED MATERIAL

- 17.1 Control of age-dated materials shall be in accordance with customer's requirements or manufacturer's limits.

18.0 AGE CONTROL OF COMPOUNDS, PAINTS, ETC.

- 18.1 Age control of compounds, paints, etc., that are affected by storage shall be in accordance with customer's requirements. In the event the customer has no requirements, the manufacturer's storage limits shall be observed.

19.0 STORAGE OF CUSTOMER FURNISHED MATERIAL AND EQUIPMENT

- 19.1 In the event customer's purchase order require PAUL MACHINE CORPORATION to provide separate storage area for materials furnished, PAUL MACHINE CORPORATION Quality Department shall maintain surveillance on the stored material as prescribed in this procedure.

PAUL MACHINE QUALITY CONTROL MANUAL

20.0 PAUL MACHINE CORPORATION GAGE CALIBRATION SYSTEM

20.1 PURPOSE

To insure the accuracy of inspections at PAUL MACHINE CORPORATION.

To insure that all gages are periodically reviewed and are known to be within the required accuracy.

To establish standards for gage calibration that are traceable to the National Institute of Science and Technology.

20.2 SCOPE

All company gages that are used to measure and/or approve customer parts.

20.3 POLICY

All gages used at PAUL MACHINE CORPORATION will have their accuracy verified and recorded at specified intervals in the Gage Calibration Manual. Labels shall be provided that clearly indicate the CALIBRATION STATUS, the DATE OF LAST CALIBRATION and DATE CALIBRATION IS DUE. No gage shall be used if it is not properly labeled or past the due date.

20.4 RESPONSIBILITY

The Quality Assurance Manager is responsible for implementing this procedure. It is his responsibility to review this procedure at least annually. If changes are needed, he shall have the authority to revise this procedure. Each Operator or Inspector is responsible for the proper use and care of the gages. Any person noting any damage, inaccuracy,

PAUL MACHINE QUALITY CONTROL MANUAL

instability, or other evidence of a defective gage shall report such conditions immediately to the Operations Manager.

20.5 PROCEDURE

- (a) The Quality Assurance Manager will assign Gage Numbers to enter into the Gage Record. The Gage Numbers are unique to the individual gage. The same number cannot be re-assigned even for an identical replacement instrument. If a gage is withdrawn from service, the Gage Record must be retained in the GAGE CALIBRATION files.
- (b) A copy of the Equipment Calibration Record is attached as the last page of this procedure. The items that must be recorded for each gage are:

Gage Identification Number

Description

Manufacturer's Name and Model

Range

Calibration Interval

Assigned Location:

If calibrated internally:

Date of Last Calibration

Person doing Calibration

If calibrated by outside agency:

Name of Qualified Agency

Date of Last Calibration

Location of calibration Certificate

PAUL MACHINE QUALITY CONTROL MANUAL

- (c) The Quality Assurance Manager will specify the required standards needed for internal calibration procedures. A set of these standards with current Certification traceable to NIST shall be maintained at PAUL MACHINE CORPORATION.
- (d) If the gage is ACCEPTED by the calibration procedure, a CALIBRATION LABEL is prepared and put on the gage or its storage container.

CALIBRATION	
DATE _____	DUE _____
BY _____	

FACSMILE OF CALIBRATION LABEL

The gage is then returned to its ASSIGNED LOCATION.

- (e) If the gage does not pass the calibration procedure, a label is prepared clearly stating the gage STATUS. The REJECT label is put on the gage or its container.

PAUL MACHINE QUALITY CONTROL MANUAL

21.0 FACSIMILE OF A SHIPPER



4600 SOUTH KEDZIE AVENUE
CHICAGO ILLINOIS 60632
PHONE 773 847 1750 FAX 773 847 2146

P A C K I N G S L I P

XXXXX

Page 1

Bill To

Ship to

Ship Date
Your Order
FOB
Ship Via
Terms
Our Order
Salesperson

<i>Order Qty</i>	<i>Ship Qty</i>	<i>Part ID/Description Rev</i>	<i>U/M</i>
------------------	-----------------	------------------------------------	------------

Received _____ *Date* _____

PAUL MACHINE QUALITY CONTROL MANUAL

22.0 FACSIMILE OF A FABRICATION ORDER

User Paul Machine Corporation	<i>Job Traveler</i>	Page 1 Date Time
----------------------------------	----------------------------	------------------------

Job XXXXX

<i>Part</i>	<i>Req Date</i>
<i>Revision</i>	<i>Sched Start</i>
<i>Description</i>	<i>Sched Due</i>
<i>Prod Qty</i>	

PLANNED DELIVERIES

EMERGENCY SERVICE

<i>Ship Date</i>	<i>Ship Qty</i>	<i>Via</i>	<i>Order ID</i>	<i>Line#</i>	<i>Rel#</i>	<i>Cust ID</i>	<i>Cust PO</i>
------------------	-----------------	------------	-----------------	--------------	-------------	----------------	----------------

<i>Final Assembly</i>	<i>Description</i>	<i>ProdNotes</i>
<i>Part</i>		
<i>Rev</i>		
<i>Qty</i>		

OPERATIONS

<i>Seq</i>	<i>W/C</i>	<i>Opr</i>	<i>Description</i>	<i>Opr Qty</i>	<i>Setup Std</i>	<i>Prod Std</i>	<i>Start Date</i>	<i>Due Date</i>
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QTY ACCEPTED: ____ QTY REJECTED, MRR ISSUED: ____ INSP BY: ____ DATE: _____

PAUL MACHINE QUALITY CONTROL MANUAL

24.0 FACSIMILES OF ACCEPT, REWORK AND REJECT TAGS

ACCEPTED

Customer _____
W. O. No. _____ Date _____
No. Pcs. _____ Mat'l _____
Part No. _____ Ser. No. _____
Part Name _____
Inspector _____

Blue

REPAIRABLE or REWORK

Customer _____
Job No. _____ Date _____
Part No. _____ Part Name _____
P.O. No. _____ Ser. No. _____
No. of Pcs. _____
Disposition _____
Insp. _____ Stamp _____
Reason for Rework _____ over

Green

REJECTED

Job No. _____ P.O. No. _____
Part No. _____ Serial No. _____
Part Name _____
No. of Pcs. Rejected _____
Reason _____
Disposition _____
Inspector _____ Date _____

Red