

# Harbor Plastics Manufacturing

## QUALITY ASSURANCE MANUAL

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## **INTRODUCTION**

The purpose of this Manual is to convey how Harbor Plastics Manufacturing ensures ongoing support of its quality policy. It provides a practical resource which defines test, inspection, documentation, and pertinent functions related to pre-production and production components.

All Quality Systems determine by the terms of this document will be periodically reviewed to ensure efficiency. Consequently, changes made in this revised manual will augment the objectives of HARBOR PLASTICS MFG, Co

Customers of HARBOR PLASTICS MFG, Co. may, at their option, may request the new revision be instituted. Customers who are not active, are requested to return the original manual, if available, and replace it with the new revision.

## **Quality Policy**

Harbor Plastics Manufacturing  
will serve our customers  
by shipping 100% good parts, on time, every time.

We will work together  
through teamwork and training  
to continuously pursue this commitment.

## 1 Scope

- The quality assurance system encompasses the receipt of parts and material, identification, stocking and issuance of parts and material, the entire process of design, fabrication and manufacturing, packaging, storage, and shipping.
- The system is defined to reassure that parts produced by HARBOR PLASTICS MFG, Co. or its suppliers, are subject to sufficient control of quality, in order to assure customer satisfaction.
- Written inspection and test procedures are documented to supplement applicable drawings and other customer specifications required to insure product quality.

## 2 Responsibility

- The supervisor of Quality Assurance reports directly to the CEO.
- The CEO chairs the weekly quality meeting and is responsible for ensuring the continued development and maintenance of the quality system.
- The Quality Assurance Manager's responsibilities shall include the following:
  - Interpretation of conformance to customer quality requirements.
  - Review of customer drawings and specifications.
  - Decision of necessary inspection points.
  - Decision of necessary inspection and test instructions
  - Establish or amend a change control procedure for such documents by properly auditing released documents
  - Planning, developing, coordinating, implementing, and maintaining the most effective and efficient procedures for optimum quality assurance.
    - Maintenance original documents of quality records.
    - Follow-up on active corrective actions.
    - Develop, correct and enforce inspection of all special and standard gauges, test equipment, and tooling on a scheduled basis.
    - Notify customer of the action taken on corrective actions and evaluate them for significance.
    - Oversee that inspection personnel is capable of providing an unbiased decision to accept or reject any product or component inspected.
    - Appraisal of Manufacturing Process Instructions, prior to issue.

### **3 Document Control**

- Document Control is responsible for the issuing and controlling drawings and specifications.
- The Sales Department interfaces with the Customer regarding engineering changes, drawings, and specification which, upon receipt, are immediately forwarded to Document Control
- Document Control will issue an Engineering Change Notice to the relevant departments informing them of changes and implementation dates.

### **4 Purchase Order Control**

- All purchase orders, for production components, to suppliers of HARBOR PLASTICS Corp. require authorization by the Quality Assurance Manager or his authorized representative. To verify that all pertinent technical and quality requirements, including authorized changes, are incorporated in the order.
- Upon the original release of a purchase order, the buyer will furnish the vendor with all required for Incoming Inspection documents and requirements, all defined by the purchase order and approved by Quality Assurance.
- When a drawing or specification change is issued, the buyer will issue a Purchase Order Change, with the latest changes and drawings or specifications..

### **5 Raw Material**

- All material received at HARBOR PLASTICS is checked for proper certification.
- All certifications are forwarded to the Quality Assurance Dept. These certifications are placed in the Document Control folder for that component.
- All certifications will be restricted to the applicable purchase order.

### **6 Receiving Inspection**

- All parts and materials received at HARBOR PLASTICS are logged in by the Shipping and Receiving Department. The log shows when the material, component or product is received, it does not close the Purchase Order until Quality Assurance informs Purchasing of P. O. compliance
- Accepted lots are identified by inspection and sent to the warehouse
- Rejected material is placed in the MRB area of Receiving Inspection until disposition is made by the Purchasing, Manufacturing Engineering and Quality Assurance
- When Disposition is RTV, The Purchasing Department will inform the vendor and negotiate a quick turn around of components that conform.

- When disposition is Rework, all material will be sent back to the vendor to have components reworked to a document indicating feature(s) to be reworked. Markups are generated by the Manufacturing Engineering Dept. and inspection definition by Quality Assurance
- Purchasing will Follow-up on discrepant issues with the vendor to make sure that corrective action was taken prior to ordering the next lot
- Manufacturing Engineering and Quality Control will review suppliers' facilities to evaluate corrective action taken by the vendor.
- Manufacturing Engineering and/or Quality Control will place or remove vendors from the Approved Vendors List.

## 7 Inspection

- Records of inspections on all New parts, component or assemblies are made by Quality Assurance and findings are recorded in PPAP document ready for Customer's disposition of findings
- The Quality Assurance Department performs first piece inspection after set up is completed and is checked to the Set-Up document for compliance and is released for the next run
- Rejected items are clearly identified and moved to the MRB area and will be kept until a disposition is rendered. Rejected items will be properly identified.
- Corrective action and performing follow-up is Quality Assurance Department function.
- WIP inspection will be recorded on the WIP Inspection Report.
- When HARBOR PLASTICS elects to use an inspection equipment or procedure other than those specified or referenced by the customer:
  - The customer will be notified in writing and Harbor will not implement it until customer has approved such document. Implementation and affectivity of the proposal is accepted by the customer defining implementation date.
  - The Quality Assurance Department may use an alternative procedure and equipment as long as it is equal or better to those specified in the customer.

## 9 Nonconformance

- All nonconforming supplies, parts and/or material will be placed in an MRB area. The items will be clearly identified.
- Nonconforming material will be reviewed by Manufacturing Engineering and Quality Assurance Departments and a disposition will be rendered.
- Disposition of Non-conforming supplies, parts and/or material:
  - RTV, Return to Vendor, disposition should indicate clearly whether the supplies, parts and/or material is returned to the vendor for Rework or Replacement.
  - UAI, Use-As-Is, indicated that the supplies, parts and/or material can be used and is shippable to customer.
  - SCRAP, supplies, parts and/or material will be destroyed prior to disposal.

- IR, Internal Rework, supplies, parts and/or material is placed in the MRB area until Manufacturing Engineering and Quality Assurance Department renders disposition of the material.

## **10 Tool and Gage Control**

- All special tools, jigs, fixtures, gages and measuring equipment must be properly identified and catalogued.
- Each tool, jig, fixture, gage and measuring instrument must be inspected prior to release for use.
- Quality Assurance will define a schedule for frequency for calibration of gages, measuring and test equipment.
- Manufacturing Engineering will define a schedule for frequency for maintenance of molds.
- Manufacturing Engineering will maintain a log of each tool maintained and reworked. Nature of rework will be entered in the tool log.
- Calibration is performed in accordance with written procedures.
- Obsolete or out-of-service tools and gages are placed in the Quality Assurance Department properly identified.
- Dated stickers are applied to tools & gages indicating date due next calibration
- Jigs, fixtures and tools are maintained on a calibration/maintenance schedule.

## **11 Packaging and Shipping**

- All orders are packaged for shipment on customer's approved shipping container/pallet.
- Final Inspector's acceptance stamp, or inspector's signature and Date of Inspection Acceptance may be placed on the carton/container.
- Orders that do not show customer's requirements must be packaged in a manner that prevents damage, deterioration, or pilferage.
- Adequate markings, by means of custom, bar-coded and/or customer's labels will be applied on all the packaging, as indicated on the shipping documentation.
- A part number and description will identify all materials and articles in the shipping container/pallet
- OOBI, Out Of Box Inspection, at the discretion of the Quality Assurance Department or customer's requirements, a shipping box will be removed from the shipping dock lot and inspected for shipping conformance

## **12 Pertinent Documents**

- PURCHASE ORDER FORM
- MATERIAL REJECTION REPORT
- MRB IDENTIFICATION TAGS
- INSTRUMENT CALIBRATION RECORDS

- CALIBRATION CHART
- MOLD REPAIR AND MAINTENANCE
- PPAP – Production Part Approval Process
  - MATERIAL FLOW CHART
  - INSPECTION REPORT