

Huntown Products
Quality Control Manual

January 1999

Quality Control Manual

Quality Control Manual Introduction

This manual is issued to describe the quality assurance system employed at Humtown Products to attain compliance with our customer requirements as specified in purchase orders, contracts, and subcontracts.

Our Policy is to apply the system to articles and materials we receive, as well as articles our suppliers or we produce.

This manual provides our personnel and customers with a description of company policy for maintaining an effective and economical quality assurance system planned and developed in conjunction with other planning functions.

Written procedures for implementing the policy described herein shall be established as dictated by complexity and by individual customer requirements. No changes to this manual or to any supplementary quality assurance procedure are valid until approved by the management or other authorized representative.

Quality Control Manual

1.0 Scope

- 1.1 The quality assurance system encompasses receipt of materials, identification, stocking identification, and issue or delivery of materials to the entire process of manufacture, packaging, storage, and shipping.
- 1.2 The system is designed to assure that products manufactured or services rendered at our facility are subject to adequate control of quality to ensure customer satisfaction. This system is designed to provide for early detection of discrepancies and positive action.
- 1.3 Inspection and test procedures are available per customer's requirements.

Quality Control Manual

2.0 RESPONSIBILITY

- 2.1 The Manager of Scheduling and Production (Production Manager) along with the National Sales Manager (Sales Manager) shall act as a team fulfilling the job of the Quality Assurance Manager. Together they report directly to the company President.
- 2.2 The Quality assurance Manager's responsibilities shall encompass the following:
- 2.2.1 Interpretation of conformance to customer quality requirements.
 - 2.2.2 Review of customer drawings, supplied tooling and specifications.
 - 2.2.3 Determination of necessary inspection points.
 - 2.2.4 Documentation of necessary inspection and test instructions.
 - 2.2.4.1 Establishing a control procedure for such documents.
 - 2.2.5 Planning, developing, initiating, coordinating, implementing and maintaining the most effective and efficient procedures for optimum quality assurance.
 - 2.2.6 Maintenance of adequate quality assurance records as necessary.
 - 2.2.7 Review of quality assurance records and internal corrective action follow-up.
 - 2.2.8 Vendor quality assurance and corrective action follow-up.
 - 2.2.9 Follow up of maintenance of customer owned gages, and testing equipment.
 - 2.2.10 Coordination of in-plant corrective action on items rejected by the customer, notification of customer as to action taken, and evaluation of the effectiveness of the corrective action.

Quality Control Manual

3.0 PURCHASE ORDER CONTROL

3.1 All purchase orders to our suppliers are to be made by the Purchasing Agent or other authorized representative.

3.1.1 The Quality Assurance Manager, who will work with our customers to ensure a smooth viable transition to the new material, must approve any purchase order involving a process or material change.

3.2 Copies of all purchase orders to be maintained either physically or electronically.

3.2.1 Customers may request review of purchase order files, excluding pricing.

Quality Control Manual

4.0 SPECIFICATION CHANGE CONTROL

- 4.1 Humtown Products manufactures cores and molds to customer specification and using customer provided, or approved tooling. All requirements are recorded in the job information database.
- 4.2 The Production Manager is responsible for the job information database. Any and all changes recommended by the operators or supervisors are review by him before insertion into the job information database.
- 4.3 The Sales Manager or Production Manager receive specification changes from our customers, and are responsible to immediately take the proper action on such changes. If a tooling change is required, either manager shall follow up with the pattern division or the customer to ensure the proper information is available. Material or process changes are added to the job information database.
- 4.4 The Production Manager is responsible for manually changing active job cards when immediate specification changes are made by our customer.

Quality Control Manual

5.0 RECEIVING INSPECTION

- 5.1 When practical, all materials received are inspected by the receiving personnel. When applicable, bulk loads to include sample for visual inspection. All non-bulk items to be identifiable, whether marked on container, or by visual inspection.
- 5.2 Rejected lots are identifiable, and are held segregated when possible until disposition is made by the Purchasing, or Production Manager.
 - 5.2.1 The purchasing Department and applicable vendors to receive a written description and explanation of all rejected shipments.
- 5.3 Corrective action to prevent recurrence of discrepancies discovered is the responsibility of the Purchasing Manager.
- 5.4 Follow-up to ensure that the corrective action/s taken by a vendor was effective is a Quality Manager responsibility.
- 5.5 Raw materials are to be identified and stored in an area to accommodate simple identification and access.

Quality Control Manual

6.0 IN-PROCESS INSPECTION

- 6.1 A first piece inspection is performed by the Production Manager or Shift Supervisor on first run of new job.
- 6.2 After first piece inspection, each piece is inspected by each production member involved. This could include operator, finisher, assembler, core wash dipper, core oven tender, shift supervisors and warehouse and packaging personnel. When required by customer specification, further inspection, testing, and any necessary documentation is provided by the operators and finishers. Further checks by the shift supervisors are made, as required.
- 6.3 Copies of inspection reports and records sent to customers are filed.
- 6.4 Rejected pieces are to be immediately discarded.
- 6.5 The decision as to corrective actions and follow-up action to prevent recurrence of discrepant product is the responsibility of the Production Manager.
- 6.6 Inspections and control of special processes will be established as required.
- 6.7 Assembly inspection is performed by production personnel and shift supervisors.
 - 6.7.1 Any corrective action plans for discrepancies to be made by Production or Sales Manager.
- 6.8 Records of scrap and corrective action plans to be kept on file.
- 6.9 All non-conforming material to be placed in approved scrap area for disposal, or marked "DO NOT USE" until approved by customer.
 - 6.9.1 The warehouse personnel along with the Production Manager have the responsibility of tracking non-conforming material until it is either rejected, or approved for shipment.

Quality Control Manual

7.0 TOOL AND GAGE CONTROL

- 7.1 All core checking gages as applicable to be provided or approved by our customers. Responsibility for recalibration schedules is left to the customer. The Production Manager will ensure that this schedule is adhered to.
- 7.2 Scratch test gages and dial micrometers used by Humtown Products are to be visually inspected before use. Scratch test gages are subject to periodic in-house inspection per manufacturer specifications, and returned to manufacturer for recalibration when discrepancies occur.

Quality Control Manual

13.0 PACKING AND SHIPPING

- 13.1 No order will be shipped until all shipping papers are prepared unless approved by the customer.
- 13.2 All packaging requirements are to be determined on a per job basis. All materials will be packed to prevent damage and deterioration of the product. The warehouse manager and Production Manager are responsible for packaging arrangements. Special packaging instructions, when applicable, are noted in the job database.
- 13.3 Each package to be shipped will be identified with a **Quality Inspection** sheet. This report includes customer's name, part number of core, internal requisition number, number of cores per pallet or package, total number of pieces per order, operator name and shift, finisher name and shift, wash requirements, and other quality check sign-offs as required. The quality inspection sheet follows the order through the entire production process and is shipped with the product.
- 13.4 Products to be shipped in open trucks or via common carrier are sealed in plastic shrink-wrap to ensure there will be no moisture damage.