



Modern Industries Inc.

Pratt & Whitney (Canada) Products Purchase Order Quality Requirements

1. The Supplier shall acknowledge Understanding and Acceptance of the PO by returning a copy of the PO to Modern Industries, Inc. Purchasing Department bearing legible signatures of the supplier's Sales and Quality Managers.
2. Supplier shall notify Modern Industries' (MII) Purchasing Department when:
 - a. The PO price and suppliers quoted price are different, no price on the PO or are unable to comply with all PO and Quality Requirements. Non-Compliance may render the product unfit for use.
 - b. Any non-conformance from the requirements of the drawing specification, delivery or purchase order requirements must be reported with cause and corrective action in writing. All non-conformances shall be documented within shipping documents and individual parts specifically identified as non-conforming. Supplier shall NOT scrap any material or part without Modern Industries written permission.
3. Verbal agreements or instructions are strictly prohibited.
4. MII maintains a 3-day ship window on all shipments. Any shipment arriving outside this window is subject to refusal of shipment and returned to supplier at the supplier's expense.
5. Supplier shall:
 - a. Follow all requirements noted within Modern Industries/Pratt & Whitney (Canada) Sub-Tier Supplier Requirement Presentation dated December 1, 2005.
 - b. **Not** engage in any communication or correspondence with Pratt & Whitney Canada (P&WC) or United Technologies Corporation (UTC) unless requested to do so, in writing, by an authorized staff member of Modern Industries, Inc.
 - c. Meet all Aerospace Quality Requirements set forth by P&WC and UTC including, but not limited to, the following specification.
 - **ASQR-01** Supplier Quality System Requirements.
 - **ASQR-08.2** First Article Inspection.
 - **ASQR-09.1** Flight Safety Parts Program.
 - **ASQR-15.1** Handling, Storage, Packaging, Preservation & Delivery.

- **ASQR-20.1** Supplier Sampling Requirements.
- **UTCQR-09.1** Process Certification (SPC).
- **SAE AS9102** Aerospace First Article Requirements.
- **CPW 543** Requirements for Visual Inspection

6. Supplier shall:

- a. Have a Quality System compliant to AS 9100.
- b. Have a Calibration system compliant with ANSI NCSL Z540-1 & ISO 10012.
- c. Be ISO 9001 registered by Dec. 31, 2006.
- d. Return parts, prints, documents and gages in the same containers as received unless otherwise directed in writing from MII.
- e. Not subcontract items listed on the PO without MII's written approval.
- f. Document ALL processes in written form, including a unique I.D. number and revision level. All Sub-Tier processes shall be submitted and receive Modern's formal written approval. The approved process unique I.D. shall be included on the Sub-Tier's purchase order. Any changes to an approved process shall require submittal & re-approval, in writing, by Modern. This re-approval will be reflected on the Sub-Tier's P.O. through a change to the new unique process I.D. number.
- g. Prevent handling damage, FOD and metal-to-metal contact of product, either in place or during movement, using safe and prudent handling practices and equipment. Dedicated material handling equipment shall be planned & documented as part of manufacturing planning.
- h. Utilized Bubbled Prints and Detailed Inspection Plans supplied by Modern Industries, Inc. Supplier shall declare on the DIP the proposed gages to be used for each feature and must show gage range. E.g.: Calipers Dial 0 - 12" x .001 or Mic OD Digital 0 - 1" x .00005. Vague descriptions of inspection methods such as Layout, Verify & Spec are not admissible. Modern Industries' Quality Dept must approve all Detailed Inspection Plans prior to their use. DIP must be revision controlled and cannot change without Modern Industries' written approval.
- i. Ensure Customer Approved Vendors are utilized for ALL special processes.
- j. Control all approved subcontractors and ensure all PO requirements are flowed down.
- k. Maintain ALL Quality Records in accordance with UTC ASQR-01. All Quality Records shall be maintained for a no less than 10 years. Quality Records for all Flight Safety components shall be maintained for no less than 40 years.
 - Quality Records include, but are not limited to: First Article Inspection Report, Routers/Travelers, In Process and Final Inspection Reports, SPC Data, Non-Conforming

Material Reports, Certificate of Conformance, Material Cert and Special Process Certifications.

- i.** Forward ALL Quality Records to Modern Industries with each shipment.
 - Detailed Inspection Plans must be completed electronically within the MS Excel spreadsheet provided by Modern Industries. DIP must be forwarded to Modern Industries via e-mail and must remain in the .xls (Excel) format.
 - All records shall be scanned in to .pdf format (Adobe Acrobat).
 - All records shall be clear and legible after scanning.
 - Forward to Modern Industries, Inc. Purchasing or Quality Departments via e-mail.
 - m.** Deliver a Certificate of Conformance (MII-FRM-00111) with each shipment.
 - n.** Maintain Test Specimens used for testing to assure process of product conformity as required by governing specification, whenever applicable.
 - o.** Furnish certifications identifying processes performed. Certifications shall provide current specification level, items such as but not limited to thickness, hardness, results, or special process perimeters with each shipment.
 - p.** Perform 100% visual inspection to the requirements of CPW 543 on ALL part numbers; no sampling is permitted. Inspection to be completed by trained & authorized inspection personnel.
 - q.** Provide First Article Inspection Report (FAI) for each new part number, revision level, new lot and or annually. FAI shall be performed in accordance with SAE AS 9102.
 - r.** Select gages with an accuracy ratio of 10 to 1 (product tolerance to gage tolerance). Accuracy ratios as low as 4 to 1 are permitted, but must be documented.
 - s.** Gage R & R studies are required to be conducted and the results must be maintained on file for no less than 7 years. Results of gage R & R studies must be made available to Modern Industries, Inc. upon request.
 - t.** Provide SPC process charts when “Key Characteristics” are identified with a Key, Ckey or Mkey.
- 7.** Modern Industries, Inc. to supply ALL raw materials and hardware.
- a.** All raw materials to be stored in a bonded area with restricted access.
 - b.** A logbook shall be introduced and maintained reflecting issuance of raw material to the floor, to include: what was released, how much, what is remaining, and to what job order
 - c.** All raw materials to be clearly identified, in an indelible manner on two ends, while in raw material stores.

- d. Any cut pieces that will remain in stores must also be clearly identified. Supplier shall have a written procedure, revision controlled, to re-label material whenever the label is cut off.
 - e. Supplier shall not use more than one material heat lot number per lot of parts manufactured.
 - f. Supplier shall use only the material identified in the body of the PO to manufacture parts.
 - MII PO to specify: Material Type, Heat Lot #, Material Cert #, Size of Material & Amount issued.
8. Part(s) must meet customer drawing, specifications and current revision level.
- a. Qualified Personnel shall complete inspection and tests as applicable and in accordance with **ASQR-01 Sec 6.2.2**.
 - b. Dimensional sampling inspection is NOT permitted. 100% inspection is required.
 - c. Suppliers may petition Modern Industries' Quality Dept. with proposed Sampling Plan. Sample Plan petitions must be part number specific. The use of sampling is prohibited without Modern Industries' written approval. Sampling Plan approvals are contingent on the supplier's overall performance including, but not limited to, Quality (QPPM), On-Time Delivery and Gage R & R studies.
 - d. For any escapes detected, the Supplier shall inspect the offending characteristic 100% on the next (3) three consecutive shipments at a minimum. These inspections shall be documented on the Sub-Tier's C of C. SPC will be required as evidence of compliance.
9. MII, its Customers and Regulatory Agencies reserve the right of access to the supplier's premises to determine quality of work, records and material on parts and processes noted herein.
10. In the event of a failure including, but not limited to, form, fit or function; the supplier shall provide a written and detailed failure analysis / cause and corrective action with appropriate objective evidence upon request.

REVISION LIST:

DATE	CHANGE DESCRIPTION
06/08/2006	Initial release
02/15/2010	Revised the format and removed the revision level from the ISO 9001 and the AS 9100