

## FOREIGN OBJECT DEBRIS/DAMAGE (FOD) PREVENTION

### 1 PURPOSE & APPLICATION

- 1.1 This procedure defines the process for identifying, and eliminating potential damage to aircraft/aircraft parts caused by foreign/loose objects debris FOD.
- 1.2 It applies to all MTI personnel.

### 2 RESPONSIBILITIES

- 2.1 All MTI personnel are responsible for:
  - 2.1.1 Identifying, preventing and eliminating FOD.
  - 2.1.2 General shop cleanliness.
- 2.2 Engineering Personnel:
  - 2.2.1 Identify assemblies where the possibility exists for entrapment of foreign objects and debris.
  - 2.2.2 Create verification points on the production router where a FOD free condition can be adequately determined.
  - 2.2.3 Flow down FOD requirements to sub tier suppliers when applicable.
- 2.3 Assembly personnel:
  - 2.3.1 Ensure all tooling is accounted for and that the finished product is free of foreign debris such as chips, shavings, loose hardware and any other object not applicable to the assembly.
- 2.4 Quality Inspectors:
  - 2.4.1 Visually inspect parts/assemblies to ensure they are free of any shavings, chips, or loose hardware or tools that constitute FOD.
- 2.5 Packaging Personnel:
  - 2.5.1 Seal parts in clear plastic and packaging materials that will not contribute to the generation of FOD.
- 2.6 Internal Auditors:
  - 2.6.1 Perform quarterly assessments to measure FOD program effectiveness and program compliance during routine product audits.
- 2.7 Operations & Support Manager provides annual FOD prevention training.

### 3 PROCEDURE

- 3.1 All MTI personnel are responsible for ensuring every effort is taken to prevent and eliminate FOD.

- 3.2 During the manufacturing planning process, engineers identify areas where there is a potential for foreign object entrapment and include verification points at those production router sequences to ensure parts are free of any foreign objects or debris.
- 3.3 Assembly personnel assemble detail parts in accordance with customer requirements and production router instructions taking care to remove any shavings or chips created during the assembly process.
  - 3.3.1 Before closing any assembly which will no longer provide access to the assembly's interior, the assembler contacts a Quality Inspector who witnesses the closure and stamps the production router indicating the verification was performed and that no FOD such as tooling, hardware or any other foreign object was present.
- 3.4 Quality inspectors, in conjunction with routine in-process and final inspection activities, verify the overall condition of the parts making certain all hardware is securely attached, and that no shavings or chips remain on the parts from the manufacturing/assembly process.
- 3.5 Packaging personnel individually package parts in clear plastic bags before placing them in packages such as boxes for shipment.
  - 3.5.1 When additional protection is required to avoid part damage, parts are secured using bubble wrap, kraft paper, or foam padding (MTI does not use packing peanuts).


### 4 REVISION HISTORY – Authored by Russel Brunson, approved 4 August 2004.

- 4.1 Added additional requirements applicable to general shop cleanliness, flow down of FOD requirements to sub tier suppliers, program assessments via product audits, annual training and added specificity in regards to the items the inspector is checking for before closure of an assembly. Authored by Russel Brunson, Approved 20 April 2005.


### Approvals

  
\_\_\_\_\_  
Document Custodian

20 Apr 2005  
Date

  
\_\_\_\_\_  
Quality Director

20 Apr 2005  
Date

  
\_\_\_\_\_  
President or Vice President

20 Apr 2005  
Date