



INSPECTION SPECIFICATION GUIDELINES				PAGE 1 OF 3
APPROVAL: <i>Dave Low</i>	AUTHOR: Phil Miller	DOCUMENT#: 0-0823-3002	REV: B	RELEASED DATE: 05/09/2022

1.0 **PURPOSE**

To insure consistent inspection procedures.

2.0 **SCOPE**

This procedure applies to the setup of the inspection specification and any checking of the internal routing procedures which would preclude the inspection process.

3.0 **DEFINITIONS**

- MIE TRAK – Prismier’s Enterprise resource planning system
- uniPoint – Prismier’s Quality Management Software
- NC – Non-conformance
- WO – Work Order

4.0 **INSPECTION PROCESS CHECKS**

- 4.1 Check into the proper Mie Trak Work Order number before the start of any inspection specification creation and check out when the inspection set-up or inspection action is complete.
 - 4.1.1 Initial inspection specification creations should have a zero quantity
 - 4.1.2 Final inspection specification creations should have a quantity equal to what was produced. Note: This may be more than the WO quantity.
- 4.2 Use internal print from Prismier engineering for the laser or Turret inspection only
- 4.3 Use the customer print for all other in-process inspection specifications
 - 4.3.1 Only use the internal prints from engineering or quoting for in-process inspections if a customer print does not exist.
- 4.4 Before completing the final inspection process, review all in-process inspections for accuracy, completion, and failed dimensions.
 - 4.4.1 Create an in-process inspection NC for any failed parts and notify both the Floor/Cell manager and the appropriate quality personnel about the failure as soon as possible.
 - 4.4.2 Any failed dimension or feature found during manufacturing must be remeasured in the final inspection process.
 - 4.4.3 Set all in-process inspections (for a work order) to “complete” & save before creating the final inspection specification and/or final inspection record.

5.0 **IN-PROCESS INSPECTION**

- 5.1 All router steps which transform a part or assembly, post any engineering and QC set-up work, is required to have an inspection specification and corresponding inspection record(s).
- 5.2 This includes the following:
 - 5.2.1 Incoming inspection
 - 5.2.2 Laser Cutting
 - 5.2.3 Turret Punch



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- 5.2.4 Machining (all unique set-ups)
- 5.2.5 Drilling
- 5.2.6 Countersinking/Counterboring
- 5.2.7 Tapping
- 5.2.8 Hardware Insertion
- 5.2.9 Welding
- 5.3 Operations specifically required to be checked in final inspection can be excluded from the in-process inspection requirements. Excluded operations are:
 - 5.3.1 Soft-Jaw and/or Custom tooling creation
 - 5.3.2 Deburring
 - 5.3.3 Bead blasting
 - 5.3.4 Laser engraving
 - 5.3.5 Mechanical sub & upper-level assembly
- 5.4 In-process inspection may include the following which apply to the process or transformation step in question and can be measured with machine side tooling:
 - 5.4.1 Any critical dimension noted by the customer
 - 5.4.2 Transformational dimensions which are specifically created during that process
 - 5.4.3 Tight tolerance features as defined by either Engineering or QC
 - 5.4.4 Hardware type and quantity
 - 5.4.5 Weld locations & length
 - 5.4.6 Overall dimensions
 - 5.4.7 Critical to process dimensions (Key machining set-up dimensions)
- 6.0 **FINAL INSPECTION SPECIFICATIONS**
 - 6.1 Final inspection shall include the following feature measurements:
 - 6.1.1 Any critical dimension noted by the customer
 - 6.1.2 Any dimension which failed during the manufacturing process of the current lot.
 - 6.1.3 Overall dimensions
 - 6.1.4 Assembled dimensions
 - 6.1.5 Flange heights/lengths
 - 6.1.6 Bore diameters & depths
 - 6.1.7 Tight tolerance features (as defined by the manufacturing process)
 - 6.1.8 Countersinks & counterbores
 - 6.1.9 Check of all threaded features
 - 6.1.10 GD&T features across separate machining set-ups
 - 6.1.11 Check of correct press-fit / assembly hardware being used
 - 6.1.12 Burr & sharp edge presence
 - 6.1.13 Verification of all drawing notes
 - Min/max radii excluded
 - Specific customer documentation references excluded
 - Regulatory references excluded
 - References to the 3D cad excluded



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7.0 **RESPONSIBILITIES**

This document applies to all QC inspectors on the manufacturing floor(s). This document is to be maintained by the Director of Quality.

8.0 **TRAINING REQUIREMENTS**

All Employees are to be trained on the contents of this procedure per the training matrix.

9.0 **NONCONFORMANCE**

Any nonconformance to this procedure is to be reviewed with the Director of Quality for further action.