**Form 3 / Field 5 – Characteristic Number (Char. No.)**

**MEANING:**  
The unique number assigned to each individual characteristic being inspected on the part. This number links the FAI form entry to its corresponding callout in the drawing, model, or inspection plan.

**WHAT THIS FIELD IS ASKING:**  
Enter the sequential number that matches the ballooned drawing or digital inspection plan for the characteristic being verified.

**EXAMPLES OF VALID INPUT:**

* 1
* 15
* 32a

**COMMON MISTAKES (Avoid these):**

* Using a different sequence than the ballooned drawing.
* Omitting sub-features or composite tolerances that have separate balloons.
* Renumbering after the inspection plan has been issued.

**TIPS:**

* Keep numbering consistent across all forms and the ballooned drawing.
* If characteristics are added or removed, document and explain changes.

**Form 3 / Field 6 – Reference Location**

**MEANING:**  
The exact location on the drawing, model, or specification where the characteristic is defined.

**WHAT THIS FIELD IS ASKING:**  
Enter the drawing zone, sheet number, or model coordinate that points to where the characteristic appears.

**EXAMPLES OF VALID INPUT:**

* Zone B3
* Sheet 2, Zone A5
* 3D Model – Coordinate 124,75,50

**COMMON MISTAKES (Avoid these):**

* Listing a general drawing reference instead of the precise zone.
* Leaving the location blank when multiple similar features exist.

**TIPS:**

* Always double-check the location against the correct drawing revision.
* For digital models, include a coordinate or unique feature identifier.

**Form 3 / Field 7 – Characteristic Designator**

**MEANING:**  
The type or classification of the characteristic, often based on customer or industry requirements (e.g., Critical, Key, Major, Minor).

**WHAT THIS FIELD IS ASKING:**  
Enter the correct designator code or description as defined by the engineering drawing or quality plan.

**EXAMPLES OF VALID INPUT:**

* CC (Critical Characteristic)
* KC (Key Characteristic)
* Safety Critical
* N/A (if not applicable)

**COMMON MISTAKES (Avoid these):**

* Confusing internal shop codes with official customer designators.
* Leaving the field blank when the drawing clearly designates the characteristic.

**TIPS:**

* Match the designator exactly as called out in the drawing or spec.
* When in doubt, confirm with engineering or quality before entering.

**Form 3 / Field 8 – Requirement *(High-error field)***

**MEANING:**  
The exact specification, dimension, tolerance, material property, or other measurable criteria that the characteristic must meet.

**WHAT THIS FIELD IS ASKING:**  
Clearly state the target value and allowable limits for the characteristic, as written in the engineering drawing, model, or specification. This is the “rule” against which results will be compared.

**EXAMPLES OF VALID INPUT:**

* Ø25.00 ±0.05 mm
* Surface roughness ≤ 1.6 μm Ra
* Hardness 28–32 HRC per AMS 2759/7
* Paint thickness 0.0020–0.0030 in

**COMMON MISTAKES (Avoid these):**

* Writing vague phrases like “per print” or “see drawing.”
* Copying only the nominal value without the tolerance.
* Mixing units (mm vs inches) or omitting them entirely.
* Transcribing incorrect tolerances from an old drawing revision.
* Entering an internal shop spec instead of the customer’s requirement.

**TIPS:**

* Copy the requirement exactly from the controlling document.
* Include all units, tolerance symbols, and surface finish notation.
* If the requirement is a pass/fail condition, state the criteria for “pass.”
* If derived from a specification, include the spec number and revision.

**Form 3 / Field 9 – Results *(High-error field)***

**MEANING:**  
The actual measured, tested, or inspected value obtained for the characteristic during the FAI.

**WHAT THIS FIELD IS ASKING:**  
Record the precise inspection results using the same units and decimal places as the requirement. For attributes or pass/fail checks, indicate “Pass” or “Fail” along with any relevant notes.

**EXAMPLES OF VALID INPUT:**

* 25.02 mm (requirement: Ø25.00 ±0.05 mm)
* 1.5 μm Ra (requirement: ≤ 1.6 μm Ra)
* 29 HRC (requirement: 28–32 HRC)
* Pass (visual inspection per MIL-STD-130 marking requirement)

**COMMON MISTAKES (Avoid these):**

* Writing “OK” or “Acceptable” instead of the actual measured value.
* Rounding results to make them appear within tolerance.
* Using different units than the requirement without converting.
* Leaving the field blank for pass/fail checks instead of stating “Pass” or “Fail.”
* Copying nominal values instead of actual measurements.

**TIPS:**

* Always measure with calibrated tools and record the actual reading.
* Match decimal places to the drawing or spec for consistency.
* If using attribute data, note the method (e.g., “Pass – Visual per WI-220”).
* For multiple sample points, record all or attach a referenced report.

**Form 3 / Field 10 – Designated/Qualified Tooling**

**MEANING:**  
Specific tools, fixtures, or gauges required or approved by the customer to measure the characteristic.

**WHAT THIS FIELD IS ASKING:**  
If the characteristic must be measured with a designated or customer-approved tool, list it here. If none, enter “N/A.”

**EXAMPLES OF VALID INPUT:**

* Customer fixture #FX-101
* Gauge ID 556 per Boeing DQMS
* N/A

**COMMON MISTAKES (Avoid these):**

* Leaving blank instead of “N/A” when no special tooling is used.
* Listing general tool types (e.g., “caliper”) instead of the approved tool.

**TIPS:**

* Confirm the tooling ID matches the approval list.
* Keep calibration records for any designated tooling.

**Form 3 / Field 11 – Nonconformance Number**

**MEANING:**  
The unique number assigned to a formal nonconformance record if the characteristic did not meet the requirement.

**WHAT THIS FIELD IS ASKING:**  
If a nonconformance exists for this characteristic, enter the tracking number from the Nonconformance Report (NCR). If the characteristic is acceptable, leave blank or mark “N/A.”

**EXAMPLES of VALID INPUT:**

* NCR-2024-0157
* MRB-5562
* N/A

**COMMON MISTAKES (Avoid these):**

* Entering “Fail” here instead of the NCR number.
* Using internal scrap tags rather than official NCR tracking numbers.

**TIPS:**

* Ensure NCRs are fully processed before FAI submission.
* Link each NCR number to the relevant row for traceability.

**Form 3 / Field 12 – Additional Data / Comments**

**MEANING:**  
A space to provide clarifying notes, special conditions, or extra details that help explain the inspection result or method.

**WHAT THIS FIELD IS ASKING:**  
Record any relevant information that is not already captured in other fields but is important for the reviewer.

**EXAMPLES OF VALID INPUT:**

* Inspection performed at 20°C ±1°C
* Multiple parts measured – results averaged
* Customer witness present

**COMMON MISTAKES (Avoid these):**

* Using the comment field for unrelated or personal notes.
* Repeating data already in the Requirement or Results fields.

**TIPS:**

* Keep comments clear, factual, and concise.
* Reference attached documents rather than rewriting them in full.