

HYSON Metal Forming Solutions Supplier Quality Requirements

1) AER-01 Generic Quality clauses

- a) **CERTIFICATIONS:** When called out on the purchase order, the supplier shall provide a Certificate of Conformance with each shipment.
 - i) The certificate shall stipulate that the material referenced on the certification has been manufactured and inspected in conformance with all applicable drawings and specifications.
 - ii) The cert must include the title and signature of the customer representative; certs generated electronically that contain the company representative and title are acceptable. The title "Authorized Signature" is not acceptable.
- b) **FLOW DOWN:** If the supplier uses sub-tier suppliers for material, processing parts, or providing services used on HYSON Metal Forming Solutions parts, the requirements of the purchasing document, including all flowed down requirements from our customer, shall be flowed down to the sub-tier supplier.
 - i) Any "Critical" or "Key" Characteristics called out shall be noted and controlled.
 - ii) Right of entry to any sub-tier supplier and at any level of the supply chain.
 - iii) Specific sub-tier suppliers will be required when called out on the purchase order.
- c) **RIGHT OF ENTRY:** HYSON Metal Forming Solutions, HYSON Metal Forming Solutions' Customers, and/or government representatives reserve the right to determine and verify quality of work, records and material at the supplier's location.
- d) **PROTECTION OF MATERIAL:** Materials or parts intended to be shipped to HYSON Metal Forming Solutions must be properly packed to protect from damage such as nicks, scratches, deformation and exposure to foreign materials that can cause deterioration during shipping and handling.
- e) **RECORD RETENTION:**
 - i) The supplier shall maintain adequate records of inspection, tests, and other Quality Assurance activities.
 - ii) Records shall provide objective evidence of the Quality Assurance operations performed and results obtained.
 - iii) Such records shall be made available to HYSON Metal Forming Solutions when requested.
 - iv) Records shall be maintained for 10 years from the date of shipment from HYSON Metal Forming Solutions; exclusions from this requirement may be made if all pertinent supplier records are submitted and maintained by HYSON Metal Forming Solutions.
- f) **DOCUMENTATION:**
 - i) In the case of pre-formatted documents, a dash '-' or "N/A" should indicate the field is not applicable to the document or is not being used.
 - ii) Documentation must be legible, in permanent marking (ie. Pen ink), with errors crossed out with a single line. Errors can not be otherwise corrected (note: use of whiteout is not acceptable).
- g) **NONCONFORMING PRODUCT:** The supplier shall notify HYSON Metal Forming Solutions of any non-conforming product and obtain approval for product disposition.
- h) **RISK:** The supplier shall notify HYSON Metal Forming Solutions of any associated risks impacting delivery and quality.
- i) **SUPPLIER WILL ENSURE THAT ALL EMPLOYEES ARE AWARE OF:**
 - i) Their contribution to product or service conformity;
 - ii) Their contribution to product safety;
 - iii) The importance of ethical behavior.
- j) **RAW MATERIAL: Material Certifications are required.**
 - i) Material certification requirements need to be flowed down to the raw material source.
 - ii) Test results must be submitted with the material as requested and be available upon request.
 - iii) Counterfeit Product Prevention: Supplier must validate that raw material certificates meet the specified requirements.

k) *SUPPLIER QUALITY MANAGEMENT SYSTEM (QMS)*

- i) Based on the Supplier Risk Analysis, the automotive related suppliers of products and services are evaluated for the need to be developed to IATF 16949. The development activities are geared towards improving their certified ISO 9001 quality management system, towards the eventual certification to IATF 16949.
- ii) Unless otherwise specified by the customer, the following sequence should be applied to achieve this requirement:
- iii) Certification to ISO 9001 through third-party audits; unless otherwise specified by the customer, suppliers to Barnes FMC Brecksville will demonstrate conformity to ISO 9001 by maintaining a third-party certification issued by a certification body bearing the accreditation mark of a recognized IAF MLA (International Accreditation Forum Multilateral Recognition Arrangement) member and where the accreditation body's main scope includes management system certification to ISO/IEC 17021'
- iv) Certification to ISO 9001 with compliance to other customer-defined QMS requirements (such as Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers (MAQMSR) or equivalent) through second party audits.
- v) Certification to ISO 9001 with compliance to IATF 16949 through second party audits.
- vi) Certification to IATF 16949 through third-party audits (valid third-party certification of the supplier to IATF 16949 by an IATF-recognized certification body).

l) *PROCESSED MATERIAL – "SPECIAL PROCESSES"*

- i) The supplier shall notify HYSON Metal Forming Solutions of changes in process, changes of sub-tier suppliers, or changes of manufacturing facility location that affect product quality and, where required, obtain HYSON Metal Forming Solutions approval. This includes documenting the trail of succession when standards used are other than called out on the print or purchase order.
- ii) Accountability of material is very important. "In" and "out" counts should be reported to HYSON Metal Forming Solutions.
- iii) The supplier shall not exercise discrepant material review authority on parts, material, or processes without documented approval to do so by HYSON Metal Forming Solutions. (verbal-only approval is not permitted)

2) AER-02 FAIR

- a) A FAIR is a First Article Inspection Report.
 - i) Full dimensional inspection must be performed and documented for a new product that is representative of the first production run.
 - ii) Prototype parts or parts manufactured using methods different from those intended for the normal production process must not be subject to first article inspection.
 - iii) A component FAIR is required when called out on the purchase order. The FAIR shall be submitted with the first run of each part number.
 - iv) A delta FAIR (change in material, equipment, tooling, or process) shall be submitted any time there is a change associated with the purchased part. Only the characteristics related to the change itself, plus Key characteristics, are required.
 - v) Additionally, a FAIR is required if the original part with a FAIR requirements has not been made for longer than two years.
 - vi) If you are unfamiliar with this requirement, please contact HYSON Metal Forming Solutions for guidance.

3) AER-03 TEST SPECIMENS

- a) A test specimen is a sample of the part, or a piece of the same material, that is processed with the order. Common instances where specimens are required are:
 - i) When material analysis is required
 - ii) When the specification requires hardness and/or tensile testing
 - iii) When a process is designated "special" on print or identified on a purchase order.
- b) A test specimen is required when this clause is invoked.
- c) Test specimens shall be clearly labeled.
- d) Test specimens shall be processed in the production part batch-lot, not 'similarly' or 'in the same manner.' Exception, if there are multiple processing batches, specimens should be processed with one of them.
- e) Test specimens shall be submitted to HYSON Metal Forming Solutions along with the processed parts.

**BARNES FMC
BRECKSVILLE**

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- f) If specimens are not processed with the batch,
 - i) The specimen shall be treated as non-conforming material.
 - ii) The batch of parts shall be treated as non-conforming material until further notice.
 - iii) HYSON Metal Forming Solutions shall be notified of this situation for further instruction.