Quality Assurance Procedure-405

Supplier Quality Manual

Owner	QA Manager
Circulation	See procedures circulation matrix

Issue	Created By	Date	Change	Approved By	Date
05	Sudhagar Sriramulu	17/03/25	Annex 1 deleted all cross references to annex deleted throughout. New Section 2 added following sections renumbered. Para 5.25 & 5.27 updated, Para 6.6.1 ref to supplier concession deleted. Para 8.6 & 8.7 added, Para 9.2.1 updated. Para 9.3.4 & 9.3.5 added. Para 9.4.1 b) & f) updated and i), j) k), & l) added. Para 9.5.2 added. Para 9.6.1 item 1) rewritten & item 12) added. Para 9.11.1 rewritten. Para 9.13.5 d) added. Para 9.13.11 d) rewritten. Para 9.20 additional information added ref CFTI. Para 11.1 additional requirements added. Para 11.4 added.	Quality Manager	24/03/25

Revision History

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05	Sudhagar Sriramulu	17/03/25	Annex 1 deleted all cross references to annex deleted throughout. New Section 2 added following sections renumbered. Para 5.25 & 5.27 updated, Para 6.6.1 ref to supplier concession deleted. Para 8.6 & 8.7 added, Para 9.2.1 updated. Para 9.3.4 & 9.3.5 added. Para 9.4.1 b) & f) updated and i), j) k), & l) added. Para 9.5.2 added. Para 9.6.1 item 1) rewritten & item 12) added. Para 9.11.1 rewritten. Para 9.13.5 d) added. Para 9.13.11 d) rewritten. Para 9.20 additional information added ref CFTI. Para 11.1 additional requirements added. Para 11.4 added.	Quality Manager	24/03/25
04	QA Engineer	30/07/24	Section 4.2.7 added for ATEX requirements. Section 8.6.1 Para 9 & 8.28.1 EBC Spec 2678 requirements added.	Quality Manager	31/07/24
03	Gareth Brown	07/05/24	Document updated to current HHV document format. Para 4.2 Updated with reference to ISO9001 and Supplier Questionnaire form SOP400 Form 010. New Section 8.12 Thread Tolerance Classes - Policy Statement added.	Quality Manager	15/05/24
02	Sudhagar Sriramulu	24/01/23	Section 8.12 Product identification. Traceability required amendment	Quality Manager	24/01/23
01	Sudhagar Sriramulu	04/01/22	First Issue	Shailesh Shah	21/12/22
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Following sections marked as "" are FOR INTER COMPANY USE ONLY!**

1 SCOPE

1.1. The purpose of this Supplier Quality Manual is to communicate and to provide clarity on the expectation for CIRCOR Hale Hamilton Valves, (HHV). These requirements to be met by all potential and existing Suppliers (of purchased complete, partial, product and or services including subcontract) with a focus on Quality, Product reliability and Full traceability.

1.2. This Supplier quality manual provides further explanation and guidance on requirements as set forth in existing agreements, purchase orders, drawings, and specifications between HHV and Suppliers, which take precedence, and it does not replace or alter any existing contracts, purchase orders, drawings, or specifications.

1.3. HHV is committed to support all potential and existing Suppliers into the business – this support can be through training, technical awareness, auditing. It is important to HHV that you are aware your product, services allow HHV to deliver lifesaving equipment's.

2 RESPONSIBILITY

2.1. Supplier Quality Engineer is responsible to ensure this document is kept up to date with current practise.

2.2. Following sections marked as **"**"** are FOR INTER COMPANY USE ONLY!

3 SUPPLIERS

3.1. Suppliers are critical to HHV success in delivering quality products through their supply of materials, products, parts and services. This Supplier Quality Manual delivers an overview of those expectations and requirements.

3.2. As an HHV Supplier, your organization is responsible for developing and maintaining a Business / Quality Management System to ensure consistent performance in order to deliver quality parts, products and services. This includes the Supplier's responsibility for ensuring compliance to the contract and compliance to HHV specifications, drawing for the part, product or service provided.

4 SUPPLIER GOALS

4.1. Suppliers for HHV should strive to accomplish the following:

- Zero Defects (Quality)
- 100 % on time delivery (Delivery)
- Conformance to requirements to eliminate sorting, scrap, and rework (Cost)
- Continuous improvement initiatives to improve quality, delivery, and cost

4.2. Where applicable HHV will work with Suppliers to strive towards these goals using Rolling Action Item Logs (RAIL), demonstrating incremental improvements.

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5 HHV SUPPLIER SELECTION PROCESS

5.1. Suppliers are selected based on CIRCOR assessment of their ability to manufacture a product or provide a service in accordance with demanded requirements.

5.2. The criterion for approval of suppliers, other than of domestic and non-critical components i.e., labels, washers and miscellaneous or consumable item suppliers, is ISO9001 approval (by a UKAS accredited third party) or assessment by the Hale Hamilton Valves (HHV) Quality Assurance Department:

5.2.1 If supplier QMS complied with ISO9001 or AS9100 (or AS9120 for distributors) unless higher Quality System requirements are imposed by HHV and/or HHV's customer.

5.2.2 On successful completion of a Supplier Assessment Questionnaire (SOP400 FORM 010 Issue 5 24/10/2023).

5.2.3 Onsite supplier assessment carried out to assess capability, capacity, procedures, and operations on the following topics and not limited to this function. Based on the assessment, approval status will be notified to Supplier.

1. General and Business Structure
2. Quality Management System
3. Incoming Process
4. Subcontract / Suppliers Management.
5. Nonconformance management
6. Manufacturing Process
7. Manufacturing Specific Process (As Applicable)
8. Foundry (As Applicable)
9. Heat Treatment (As Applicable)
10. Non-Destructive Examination (As Applicable)
11. Continuous Improvement
12. Final Inspection & Testing.

5.2.4 Existing suppliers who are not compliant with the QMS requirements will remain in HHV Approved Vendor List and be evaluated on a one-to-one basis.

5.2.5 Supplier approval will be valid for three years. All strategic suppliers will be reassessed/reviewed every year. It can be extended by reviewing the ISO certification to ensure it is still valid and extend the approval end of the certification expiry. The re-assessment can be carried out at any time at the discretion of Head of Procurement or Head of Quality and their respective deputies.

5.2.6 The Head of Quality / Head of Procurement has the authority to veto the selection or removal of a Supplier / sub-contractor from the AVL based on performance and other factors.

5.2.7 ATEX / PED / PES(R) product suppliers will be reviewed /reassessed every year.

6 CHANGES IN QUALITY SYSTEM, FACILITIES, MANAGEMENT OR OWNERSHIP

6.1. Suppliers will immediately notify HHV purchasing team in writing, of changes to their Quality / Business System - management or ownership. Changes requiring notification include but are not limited to:

- Change in location of facilities.
- Change in processes or manufacturing equipment refer to FAIR process. (See Para 9.13.4)
- Change in ownership, name changes, or change in senior company management.
- Change in quality leadership, customer approved processes or certification including suspensions or disapprovals.

6.2. Company name changes require the following:

6.2.1 Name Change Only:

A copy of the certificate from 'Companies House' in the UK or the equivalent for the country of origin shall be supplied to HHV in addition to:

a) Full postal address relating to the name change.

b) Full international banking detail on Supplier letter headed paper.

HHV will review and determine if new account number is required/ Assigned.

6.3. Acquisitions, Mergers, Buy Outs & Take Overs etc.:

6.3.1 The Supplier is required to provide official documentation confirming the act that has taken place. In addition, the following information will be required in accordance with the above.

6.3.2 HHV will review and determine if new account number is required /assigned.

6.4. Loss of Certifications/Approval:

6.4.1 In the event that a Supplier loses their certification/approval, regulatory, special process approval, the supplier must immediately inform HHV in writing with a clear statement of "why" and planned future actions.

6.4.2 It is a supplier's responsibility to notify/submit the updated QMS certification to HHV, whenever it is renewed/updated.

6.5. Business Continuity Planning:

6.5.1 The Supplier shall have a basic business continuity plan to cover disaster recovery, the responsibilities and action to be taken in the event of an emergency that may affect deliveries to HHV.

6.6. Source Controlled Parts:

6.6.1 When HHV drawing identify a source controlled /specified manufacture, the Supplier shall only procure from this source. The supplier may wish to propose and alternative source/manufacture to HHV for approval via permit/concession process.

7 ACHIEVING QUALITY-COST-DELIVERY (QCD)

7.1. HHV expects the following from our Suppliers:

1. Products and services shall comply with all HHV specifications and process requirements.
2. Suppliers shall review, understand, and communicate any questions concerning specification and process requirements to the appropriate HHV point of contact.
3. Suppliers shall comply with all Supplier Corrective Action Requests and assist HHV with efficient and effective problem resolution and investigation.
4. Suppliers shall control their sub suppliers to ensure compliance with all HHV specifications and process requirements. A sub tier map shall be provided upon annually.
5. Suppliers shall not implement changes which impact form/fit/function of products supplied to HHV without prior formal agreement.
6. Suppliers shall notify HHV of any situation with a known or perceived negative impact to product quality, reliability and, or safety. On any historical agreement which results dimensional or process variation from the drawing \ specification to be highlighted to purchasing function.

8 PART/PRODUCT DEVELOPMENT/QUALIFICATION

8.1. Part qualification may be required for any of the following conditions or situations:

- New part or design
- New supplier
- New supplier plant or manufacturing location
- Change in form, fit or function
- Modifications required by an engineering change order
- Use of a process or material that was not included in the original qualification
- Production from new or modified tools (except perishable tools), dies, moulds, patterns, including additional or replacement tooling
- Production following any change in process or method of manufacture
- Production from tooling and equipment transferred to/from a different plant or manufacturing location
- Change of source for subcontracted parts, material or services particularly special process (e.g., heat-treating, plating etc.)
- Product re-released after the tooling has been inactive from volume production for 12 months or more

8.2. Any change, as depicted in the above conditions, must be evaluated by the supplier, may be subjected to FAIR approval, see Para 9.13.4.

8.3. Supplier must work with HHV to provide all requested information so that production representative parts and production processes can be verified.

8.4. Suppliers should review the supplier requirement, see Section 9, and ensure all specific requirements are understood and meet for both part and process.

8.5. Data submitted must be representative of the serial production process. The supplier must strive to meet all conditions and requirements as set forth in the Supplier Requirement, see Section 9. If any condition or requirement cannot be met, the supplier must notify their HHV representative.

8.6. ** When the products have arrived as initial sample or FAIR parts, 1off per product family on the PO will be tested and then stripped at HHV. The inspection result/approval status feedback will be shared to CFTI.

8.7. ** CFTI should update work instruction, in-process, and final inspection check sheet availability in Quality validation log against each submitted parts which is available in share point. Subsequently this will be reviewed by HHV and approved.

9 SUPPLIER REQUIREMENT

9.1. Contract Review:

9.1.1 All purchase orders are to be reviewed for completeness of information. If there any ambiguities, or the information is incorrect, or the requirements cannot be met, then HHV purchasing department is to be contacted and the relevant details agreed before an amendment to order is issued. This includes expected delivery date.

9.2. Document Control:

9.2.1 All documentation used in the manufacture of components must be adequately controlled. This includes Route Cards, Drawings, Purchase Orders, Works Order, Test Records, Certificate of Conformity etc.

9.2.2 Suppliers must work to the Drawing issues stated on the Purchase Order.

9.2.3 New drawings will be supplied with each order – this is to ensure that obsolete drawings are not used for production.

9.3. Process Control:

9.3.1 The supplier must control production to ensure that parts are manufactured to drawing, and any reject parts are effectively quarantined so as to prevent use.

9.3.2 Parts should be identified to ensure traceability is maintained, and that the status (e.g. OK or reject) is clear.

9.3.3 There should be a process (route card system) to trace build status, who has undertaken the task and when.

9.3.4 When order is placed with the sub-contractor /supplier to supply raw material or finish item which is in aid of PED/ PE(S)R products, suppliers or sup-suppliers shall ensure that the raw material from the mills meets the PED / PE(S)R requirements. The Mill shall have third party external ISO 9001 approval linking to the certifying body within EU and UK, for example LRQA, TUV, etc. If these requirements are not met, raw material or finish item cannot be used in the product.

9.3.5 ** CFTI must work to the drawing issues stated on the Purchase Order and should refer PDM for Latest drawing issue and technical specification, and this is to ensure that obsolete drawings are not used for production. If any discrepancy found between the PO revision level & PDM, CFTI must notify HHV and get approval before using it.

9.4. Certificate Deliveries:

9.4.1 On delivery, components must be accompanied by the following.

a) Certificate of Conformity as standard and must comply to Para 9.6.

b) For machined parts with material being sourced by the supplier then full material traceability back to source (Mill) is required see Paras 9.13.1, 9.13.2 and 9.3.4. Supplier to supply Mill external ISO 9001 approval.

c) In instances where an NDT process has been undertaken the individuals PCN certificate shall be provided, see Para 9.9.

NOTE: The British Institute of Non-Destructive Testing (BINDT) is an accredited certification body offering personnel certification against criteria set out in international and European standards through the internationally recognized PCN Certification Scheme.

d) If requested on the purchase order a FAIR must be supplied with the first delivery, as per Para 9.13.4.

e) Subsequent deliveries supplier should attach COC, material certificate and special process certificate.

f) If HHV have approved a concession to supply a non-conforming part/component, approved concession reports must be attached with the delivery note and concession number must be stated on the COC.

g) If one or more of the above is missing or incomplete on delivery, the components will be bonded within Goods-In Department until such time as full documentation is delivered.

h) For Catalogue items (COTS), material certifications may be required, standard certificate of conformance from the distributor is acceptable, see Para 9.11.

i) ** As a standard requirement, all lower tier supplier certificates, CFTI COC and test record sheets should be uploaded in share point before shipping the product/parts to HHV.

j) ** For all purchase complete parts with material being sourced from CFTI/sub tier then full material traceability back to source (Mill) and independent check at 3rd party lab test report is required. See Para 9.6 and if applicable 9.7.

k) ** Certificate of Conformity for all elastomer parts, shall have their cure date and shelf life detailed on their COC and it should comply to Para 9.11.

l) ** For all age sensitivity materials, COC must be attached /shared to HHV, and it should comply to See Para 9.11.

9.5. Electronic copy of certificate:

9.5.1 When the e-certificate is requested by HHV, below points must be followed.

1. Copy of certificate must be sent to HHV-SUPPLIER.CERTS@CIRCOR.com
2. Certificate file name must be in following format. HHV PO number-Line-Item Number-Delivery date e.g. P57851-1-25.10.2020.
3. Separate file for each line item.
4. All certificates should be in single file including Supplier COC, Mill cert, Special process cert, Dye pen, UT cert etc. for each line item.
5. If you are sending FAIR report add "FAIR" at end of the file name e.g. P57851-1-25.10.2020-FAIR.
6. High resolution scanning should be used (Min. 600dpi) when you are sending through this e-mail.
7. All certificates should be in colour or original cert from mill/supplier/sub tier.

9.5.2 ** For Complete build product/Partial build following point must be considered when the documents are uploaded in the share points.

a) Below file format should be used to create document file name while uploading the documents into the share point:

Part number _ PO number _ Line-Item number _Product serial number

b) Separate file for each line item.

9.6. Details in Certificate of Conformity:

9.6.1 The Certificate of Conformity must show all relevant information connected with the order including but not limited to:

1. HHV part/drawing number with issue/revision number for each part supplied.
2. Quantity of each part supplied. ** If applicable CFTI Serial numbers.
3. Description, as stated on the HHV purchase order, of each part supplied.
4. Where applicable, Material batch / Heat / Cast number(s) for each part supplied.

5. HHV purchase order number and item number.
6. Material/Processes that have been tested to a specification must reference that specification and any applicable Class, Grade, or method within the specification.
7. Country of origin.
8. If a permit / concession has been granted, the HHV permit / concession number must be included on the Certificate of Conformity and the items clearly identified as such.
9. The Certificate of Conformity must be signed and dated by a responsible representative of the supplier. The responsible person must also state their job title and name in legible form. Details of signature must comply to EBC specification EB 2678 section 2.7, refer to the link specified on the purchase order.
10. Mercury Free statement to be added to all Certificate of Conformity's, see Para 9.10.
11. Supplier should use the check sheet for completeness and correctness of document to be sent to HHV, see ANNEX 1.
12. ** Oldest Cure date and part number for elastomer items should be identified with in the build (See Para 9.11).

9.7. 3.2 & 3.2 intent material Certs:

9.7.1 All type 3.2 and 3.2 intent material shall be verified by an IACS member (e.g., Lloyds Register) and documented as per BS EN10204.

9.7.2 If it is 3.2 intent material, it must be **witnessed for Mechanical & Chemical tests**.

9.7.3 Where applicable IACS member to issue letter conforming the meeting of 3.2 intent material and certificate should be stamped accordingly. In the inspection certificate the following details must be traceable:

1. Independent lab test report number (Mechanical & Chemical).
2. Cast / Heat batch number.
3. Mill certificate number.
4. NDT certificates number etc.

9.7.4 3.2 intent material testing must be undertaken by a laboratory, UKAS certified or EN 17025 approved.

9.8. Chemical and Physical Test Material Reports:

9.8.1 This should be referenced in the C of C area and be a subset of that section.

a) Test reports must be provided, that support compliance to the requirements of the applicable material specification, and any special requirements specified on HHV purchase order.

b) The material report shall include the actual test results obtained from the lot number or heat number of material as required by the applicable material specification and any special requirements specified on HHV purchase order.

c) PED, ATEX, TPED Shall be supplied with the appropriate level of certification inc. DoC – Declaration of Conformity to meet UK and CE directives.

d) If raw material is bought from outside of EU / UK, additional third-party testing certificates to be supplied. In addition, it must also meet the requirements as stated in the Para 9.3.4.

9.9. Special Process Certification:

9.9.1 A report is required for all Special Processes with applicable specifications and latest revisions which is traceable to the lot. Special processes are those processes where the resulting process cannot be verified by subsequent monitoring or measurement without destructive testing.

9.9.2 Certification for these processes and/or test reports is to be submitted with each shipment.

9.9.3 Special processes include, but are not limited to, the following processes.

- Welding
- Brazing
- Soldering
- Surface Condition
- Coating
- Plating
- Non-destructive test
- Testing Materials
- Heat Treatment
- Precision Cleaning
- Casting
- Forging
- Adhesive Bonding
- Shot Peening
- Chemical Milling
- EDM Electrical Discharge Machining
- Electro Chemical Machining

9.9.4 Refer to the NADCAP web site: https://p-r-i.org/nadcap/

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9.10. Mercury free Contamination Statement:

9.10.1 Material furnished under this PO shall not contain metallic mercury or mercury compounds and shall be free from mercury contamination, i.e. during the manufacturing process, tests or inspections, the material furnished shall not have come in direct contact with mercury or any of its compounds without the specific written approval of HHV.

9.10.2 Product provided by your supplier(s) for material furnished under this PO shall also be free from mercury contamination.

9.10.3 Certificate of Conformance for shipment to HHV must include no mercury contamination statement. "***This is to certify that the material furnished on this order is free from mercury contamination."***

NOTE: Mercury is corrosive to gold, silver, nickel, stainless steels, aluminium, and copper alloys.

9.11. Age / Temperature Sensitive Material Elastomer (ISO 2230) (PTFE/Nylon):

9.11.1 Certifications to include specification number, Elastomer Hardness (Shore or IRHD as applicable), date of manufacture (MM/YY), batch / lot number and recommended shelf life. When MM/YY cannot be achieved Qtr/YY may be used.

9.11.2 Shelf/Cure dates requirements to be supplied in accordance with the purchase order specification. Exceptions will be addressed on a case-by-case basis.

9.11.3 Maximum shelf life at the point of receipt shall be maintained (at least with two years minimum remaining).

9.11.4 The seller shall identify containers, parts or materials with the manufacturing date, cure date, expiration date, and any special storage or handling condition required.

9.11.5 Items such as Elastomer & Nylon parts (hydroscopic items) shall be suitably bagged to prevent deterioration in material, i.e., Opaque sealable bags. For Nylon parts desiccant may be used.

9.12. Thread Tolerance Classes – Policy Statement:

9.12.1 BSP or G threads:

Internal threads do not have a tolerance class – these must be to ISO 228-1.

External threads have two tolerance classes – these are defined in ISO228-1 as Class A and Class B. Unless otherwise stated on the drawing, Class A tolerances shall be followed. On older drawings the term Medium fit is used, this refers to Class A.

9.12.2 UNF Threads:

Internal threads have three classes – these are defined in BS 1580-1 as 1B, 2B, 3B. Unless otherwise stated on the drawing Class 2B tolerances shall be followed.

External threads have three classes – these are defined in BS 1580-1 as 1A, 2A, 3A. Unless otherwise stated on the drawing Class 2A tolerances shall be followed.

9.12.3 Whitworth Threads:

Internal threads have two classes – these are defined in BS 84 as Medium or Normal class. Unless otherwise stated on the drawing Medium class tolerances shall be followed.

External threads have three classes – these are defined in BS 84 as Close, Medium or Free class. Unless otherwise stated on the drawing Medium class tolerances shall be followed.

9.12.4 Metric Threads:

Internal threads have three classes – these are defined in BS 3643-2 as class 5H, 6H or 7H. Unless otherwise stated on the drawing class 6H tolerances shall be followed.

External threads have three classes – these are defined in BS 3643-2 as class 4h, 6g or 8g. Unless otherwise stated on the drawing class 6g tolerances shall be followed.

9.12.5 Other Threads:

There are other special thread types in use on Hale Hamilton products, if tolerance classes are undefined or ambiguous a Corrective Action Request is to be raised to have the drawing updated.

9.13. Product Identification, Traceability:

9.13.1 Identification:

a) Unless specifically stated otherwise on the drawing, all parts must have:
   1. HHV part number
   2. Material batch number / Heat number (or)
   3. HHV shop order (If free issue material supplied)
   4. Supplier initials etched or engraved on a suitable surface, or a suitable label shall be applied.

b) When supplying as purchase complete parts as per HHV drawing /specification following must be engraved:
   1. HHV Part number.
   2. HHV PO number with line-item number e.g., P12345-1 meaning P12345 is our PO number and -1 is line item in the PO.
   3. Supplier unique identification number, Job number/ Work order Number.
   4. Supplier initials etched or engraved on a suitable surface, or a suitable label shall be applied.

c) If the area for part marking is not defined on the drawing, the supplier shall ask the HHV Quality/Purchasing/Engineering Department for advice.

d) If the drawing specifically states that the part should not be marked, then the part must not be marked, and it must be labelled as per above point "a".

e) Where there are multiple material batch numbers, they should be segregated by batch number and packaged with the part number and the corresponding material batch numbers marked on the individual packages.

9.13.2 Traceability:

a) Supplier must provide positive evidence that supplied products are traceable to their original raw material lot(s) / ingots(s) and expiration date wherever applicable.

b) The supplier is to establish and maintain procedures for identifying components from raw material stage, through machining to delivery. Full traceability must be maintained between Job Cards, Drawings, Specifications and Raw Material.

9.13.3 Inspection:

a) Inspection reports shall refer to part number and material batch Number/cast number.

b) Documentary evidence of inspections, both first off and final shall be kept as per Para 9.18.

9.13.4 First Article Inspection Report (FAIR):

a) When a FAIR is specified on the purchase order, it should be supplied in accordance with the AS9102 standard.

b) FAI may be performed by the supplier to their own requirement or HHV templates FAIR process, which is based on AS9102 (complete with inspection report) on a sample part of the first production run and approved by HHV prior to submittal of production run. The FAIRed part shall be submitted with the FAIR and be identified as such.

c) Supplemental/ Delta FAI requirements are also required based on AS9102.

HHV can provide guidance and training material to support this requirement.

9.13.5 Hale Hamilton Valves Source Inspection:

a) Source Inspection shall be conducted by HHV Quality Representative at supplier facilities or where designated in the contract prior to shipment.

b) Supplier shall provide at least 5 working days prior notice to HHV buyer of date that acceptance is required.

c) The Contractor is advised that the order may be in aid of a Defence contract and may be subject to quality assurance activity at your Works by our customer/MoD Quality Assurance Representative (QAR)".

d) **CFTI shall provide at least 45 working days prior notice to HHV buyer of date that acceptance is required.

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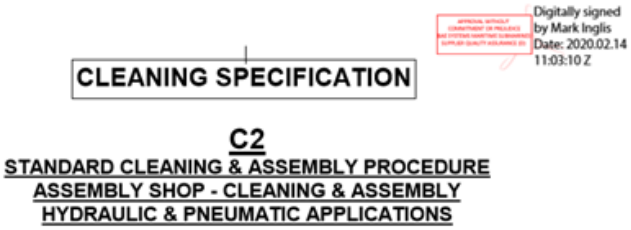
9.13.6 HHV / Customer Source / Regulatory Inspection CSI \ Witness:

If CSI / witness is required, HHV shall notify the Supplier with due notice. It is the Suppliers responsibility to ensure they are operating to approved procedures. E.g. if it is known the items being supplied goes to BAE Systems the Suppliers process shall be approved by the end Customer.

An example of a customer approved stamp.



9.13.7 100% Inspection/ First level Items HHV-C64 specification:

Where applicable, inspection is required with actual recorded results, for all characteristics on all parts to ensure conformance to drawing, specification and purchase order/contractual requirements. This may be recorded on the drawing or on a separated tracker and is deemed to be a deliverable into HHV. Naturally the items should be identified with tags or other reference points to allow the traceability of results to the items.

This requirement will be flow down to Suppliers via the drawing or the purchase order.

9.13.8 Sampling Inspection:

a) In lieu of 100% inspection of all parts, the supplier may use sampling, unless otherwise stated on contract, specification, or drawing in accordance with ISO 2859.

This requirement will be flowed to relevant Suppliers alternative sampling plan can be considered.

9.13.9 Measurement System Analysis:

It is preferable that inspection devices used to accept product or process to requirements prior to shipment shall have a maximum Gauge R&R of 25% and a minimum 4:1 level of measurement discrimination.

9.13.10 Foreign Object Debris/ Damage (FOD):

a) The material supplied on this purchase order shall be manufactured in an environment that is free of foreign objects. Material supplied shall be free of foreign objects and foreign object damage.

b) The Supplier shall utilize effective FOD prevention practices and in line with industry standards where appropriate.

c) The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generating potential of the manufacturing methods. Whenever and/or wherever FOD entrapment or foreign objects can migrate, seller's FOD prevention efforts shall, as appropriate, consider the following elements Design & Manufacturing Process Review, Performance Measurement, Training, and Material.

d) Consider: Handling and Parts Protection, Housekeeping, Tool Accountability, Hardware Accountability, Lost Items, Physical Entry Control into FOD Critical Areas, and FOD Focal Point(s).

9.13.11 Control of Non-conforming product & Corrective Action Supplier Facility:

a) The supplier is to establish and maintain a procedure to ensure that components that do not conform to drawing/specification requirements are prevented from inadvertent use by identification & segregation.

b) Supplier shall provide written notification to HHV. When a non-conformance is determined to exist, or is suspected to exist, on product already delivered to HHV.

c) If non-conforming components are produced, permission is to be sought to use said parts via the concession process. The supplier should initially have raised an internal NCR addressing the cause of why it occurred and a preventative action plan. This should be addressed via the purchasing/QA contact.

d) The supplier should use their own concession form or inform HHV buyer who will liaise internally.

e) If acceptable the concession form will be endorsed and returned to the supplier.

f) The supplier may only deliver non-conforming components if the concession is accepted, see Para 9.4.1 f).

g) If the concession is not approved the concession form will be returned to the supplier endorsed "NOT ACCEPTED". The component(s) are then to be permanently marked and scrapped.

9.13.12 Non-Conformance Notification:

In the event that a non-conformance is discovered at any stage, ALL parts/components in question must be identified and segregated. HHV will evaluate the non-conformance situation and determine the necessary actions required to contain and disposition the affected parts. As needed, HHV will issue a nonconformance notification and corrective action request to the supplier.

HHV may require a supplier to submit a formal written corrective action to address a non-conformance. The need for a NCR will be evaluated in terms of the potential impact to production costs, quality costs, performance, reliability, safety, and customer satisfaction. Suppliers must fully comply with the NCR and work with HHV to develop and implement all required corrective/preventive actions.

The NCR response must address all requirements as depicted and defined within the NCR Form, see ANNEX 2.

The following requirements must be met:

- The supplier is required to communicate immediate Containment Actions to HHV and acknowledge receipt of the NCR within 24 hours from the date of notification.
- The supplier is required to provide an initial containment update within 72 hours of notification.
- The supplier is required to complete failure analysis leading to the determination of root cause. Permanent corrective action and formal SCAR response is requested within 10 business days for that component NCR.

9.14. Supplier Charge Back / Debit:

HHV reserves the right to charge back suppliers for recovery costs associated with any/all supplier's responsibility of non-conforming parts/material and or service, along with any effected parts, caused by suppliers non-conforming material, parts and or service.

£100.00 (GBP) HHV retains the right to charge any supplier, administrative charges for each corrective action Issued due to non-conforming product and or services once liability has been agreed.

9.14.1 Recovery cost would be determined prior to debit and may include items such as:

1. Purchase price of the parts if returned to the Supplier or scrapped at HHV.
2. Standard administrative cost.
3. Product and or Services paid for shall charge back (GBP) for each part requiring rework by HHV Personnel, amount as determined by actual rework cost, will be charged back to the supplier.
4. Freight cost if non-conforming products are returned to the Supplier.

9.15. Monitoring of Suppliers:

a) Any defect identified by HHV shall be returned to the supplier together with a non-conformity report. The supplier shall then be requested to rectify the item and return the report completed with, the root cause of non-compliance and corrective / preventive action taken.

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b) Supplier scorecards may be used to form the basis of the review of performance. These are created and circulated internally and to individual suppliers on monthly basis or every quarter. The performance levels achieved drive the decision to continue doing business with each supplier. These score cards will be address with the supplier on a one-to-one bases if deemed appropriate.

9.16. Quality Rating:

9.16.1 Performance metric: Defective Parts Per Million (DPPM), Month Specific DPPM and 3 months rolling DPPM data are calculated.

9.16.2 DPPM Calculation:

- DPPM $= \frac{Parts\ Found\ Defective}{Numberof\ Parts\ Recieved}$ X1000000

Monthly DPPM score is derived based on month specific DPPM Score.

Quarterly DPPM score is derived based on 3 month rolling data of a particular month.

9.17. Delivery Rating:

9.17.1 Definition: On time shipment to the committed date within a window of seven days earlier (-7) days and zero (+0) days later, with full quantity as agreed or per purchase order.

9.17.2 Performance Metric: Supplier On time Delivery (SOTD): Percentage of orders shipped to commitment date.

9.17.3 SOTD Calculation:

- SOTD $= \frac{\#\ of\ Lines\ Received\ on\ Time}{Total\ \#\ of\ Lines\ to\ be\ Received}$ X100

Monthly SOTD Score is derived based on Month specific SOTD value.

Quarterly SOTD score is derived based on last 3-month data.

9.18. Quality Record:

a) The Supplier will establish and maintain a procedure for the storage, maintenance, and disposition of Quality records. All Quality Records shall be legible and identifiable to the component/order involved.

b) Records are to be stored and maintained in such a way that they are readily retrievable in areas that provide a suitable environment to minimize deterioration or damage and to prevent loss. Minimum retention time for all Quality Records is 20 years, however prior to disposing records suppliers must consult with HHV:

c) Quality Records include, but are not limited to, the following:

- Job Card
- Certificate of Conformity
- Purchase Orders
- Calibration Records

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- Non-Conformity Reports

9.19. Calibration:

a) The supplier will control, calibrate, and maintain inspection measuring and test equipment, whether owned by the supplier, on loan or provided by HHV, that can affect component quality.

b) Calibration will be carried out at prescribed intervals or prior to use against certified equipment calibrated to national standards.

c) All measuring and test equipment is to be uniquely identified and fully traceable via calibration records, must be identified with a suitable indicator to show calibration status and must be handled and stored in such a way as to ensure that accuracy and fitness for use is maintained.

d) All measuring inspection equipment shall be calibrated, and the master equipment(s) used to perform the calibration is traceable back to either:

- United Kingdom Accreditation Services (UKAS) to ISO 17025 accredited test house or
- delivered under the National Physical Laboratory's (NPL's) ISO 9001 compliant quality system
- The Original Equipment Manufacturer (OEM) new / recertification.

9.20. Subcontract/ Sub-tier Management:

If any 2nd tier subcontracts are required, it is the supplier's responsibility to ensure that all purchase order requirements are complied with.

The supplier has documented evidence of the assessment and review of any subcontractor and its suitability for use. Supplier has ensured the flow down of all contract/design & test requirements to his sub-tier contractor and ensures control and verification of all characteristics of product/processes supplied where applicable.

A sub tier map detailing what process are being undertaken by whom.

** When HHV drawing identify a source controlled /specified manufacture, CFTI shall only procure from this source. CFTI may wish to propose an alternative source/ manufacture to HHV for approval via a permit / concession process.

9.21. Special Processes/Materials Management:

A Special Process is defined as a process whose output cannot be easily verified post completion, see Para 9.9.3.

All special processes shall have an approved procedure approved by HHV or their Customer. In some instances, the special process alters or changes the mechanical, chemical, or physical parts of products within the operation or process - they require rigorous, standard-specific practices as well as qualified personnel or employees.

Processors must be approved by HHV and in most instances will require our customer approval prior to performing controlled process on production parts or products.

The use of HHV approved sources does not relieve the supplier's responsibility for the quality of purchased products and services.

Qualification of a subcontractor to perform a customer-controlled process requires prior customer approval. Customer listings must be reviewed for approved customer providers.

Special process will be subject to audit and witness by HHV and their Customers.

Specific written authorization of waiver must be obtained from HHV's Quality Manager in the absence of accreditation, the special process being approved by HHV and end Customer.

It is the responsibility of the supplier to ensure sub-tier compliance if undertaking such activities.

NADCAP accreditation is preferable for suppliers and sub-tiers, see Special Processes Section.

9.22. Subcontract Policy for Collection and Return of Loaned Equipment:

In unique circumstances, if there is a requirement to loan any special jigs/fixtures/gauges in support of the HHV purchase order, the following applies:

a) Loan period may vary and any extension to this must be agreed within the initial loan period with the HHV purchasing department.

b) During any loan period, any jigs/fixtures or gauges must be returned by the next working day if requested by HHV.

c) The calibration status is the responsibility of the user. If HHV has initially calibrated the item, please ensure its timely return within its period to allow recalibration. Uncalibrated equipment shall not be used.

d) On receipt it is the supplier responsibility to check loaned equipment/gauges to ensure it is not damage.

e) Any equipment damaged by the supplier shall be replaced or appropriately reimbursed.

9.22.1 Customer Property:

All Suppliers in possession of HHV owned property or end Customer property (e.g., military owned) shall have a documented process for controlling customer property. The supplier shall exercise care with property while it is under the organization's control or being used. If any property is lost, damaged, or otherwise found to be unsuitable for use, this shall be reported to the customer and records maintained.

9.22.2 Control of HHV owned or Funded Tooling:

The supplier will maintain an active tooling management plan which specifies tool life, maintenance intervals and need for repeating first articles at appropriate intervals. This is to ensure tooling does not wear to avoid production of non-conforming parts. This tooling management plan shall be reviewed by HHV auditors when necessary.

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If a non-conforming issue cannot be resolved If a problem is found the supplier shall immediately contact the buyer regarding the non-conformity and suggested next steps, i.e., concession.

9.23. Right of Entry:

Where applicable, HHV, our customers, Government or Regulatory/Statutory agencies (GQAR) shall have "right of entry" into all relevant facilities involved in the purchase order and all applicable records to verify the quality of work, records, and materials. These visits will be arranged in advance.

9.24. Handling, Storage, Packing and Delivery:

a) The supplier will establish and maintain a procedure for the Handling, Storage, Packing and Delivery of Components for HHV.

b) The supplier is to provide methods and means of handling that prevent damage or deterioration.

c) The supplier is to provide secure storage areas to prevent damage, deterioration or misuse of raw material pending use.

d) When material has been free issued from HHV, for use against Purchase order, and additional material is required, it must be obtained via HHV. Material from other sources must not be used and material batch traceability must be maintained. Segregation must be maintained between multiple batches.

e) The supplier is to control packing, preservation and marking processes to the extent necessary to ensure that damage does not occur, up to and including, delivery to HH(V). To this end dust caps, polynet, trays or a suitable wrapping material is to be used.

f) On delivery, components must be accompanied by documents specified in Para 9.4.

9.25. Preservation:

9.25.1 All non-treated Ferrous material must be preserved by the supplier using oils, oil paper, grease, or any wrapping material that will prevent corrosion. Newspaper acid or Sulphur based wrapping paper SHALL NOT BE USED.

- Electrical Laminations and pole pieces must not be oiled or greased. They shall be wrapped in corrosion resistant paper.
- Finished parts must be preserved in a manner that will prevent damage during shipment.
- Corrosion preventive compounds must not be used on electrical or electronic parts or assemblies.

9.25.2 The supplier shall preserve the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection. Preservation includes where applicable and in accordance with product specifications or applicable regulations, provisions for cleaning and prevention and detection of foreign objects.

9.25.3 HHV is prepared to work with the Supplier on unique packaging to allow a Kanban system to be implemented.

9.26. Reach:

9.26.1 Supplier should be aware of and where applicable complain to the regulation for the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) was enacted by the European Union to limit the import and use of hazardous chemicals in manufacturing.

9.26.2 If work delivered by Supplier under this Purchase Order will be incorporated into deliverable goods for use in the European Economic Area. Supplier may be required to provide information regarding REACH compliance.

9.26.3 For further detail go to: - https://www.hse.gov.uk/reach/

9.27. Prohibited Chemicals comes under REACH:

9.27.1 Product delivered to HHV shall not contain cadmium, lead, mercury, hexavalent chromium (also known as Hex-Chrome), polychlorinated biphenyls, nor radioactive materials.

9.27.2 For any products which have substances above, the restricted concentration shall be reported to HHV buyers and a substance declaration or a brief statement on the Certificate of Conformance verifying the use of any REACH substances above the restricted concentration on this Purchase Order can be used to satisfy this requirement.

9.28. Counterfeit Parts:

9.28.1 Supplier shall establish a basic Counterfeit Parts Prevention and Control Policy that meets the intent of DEFSTAN 05-135, AS5553 and AS6081 Counterfeit Avoidance. In addition, details of Malpractice or Fraud and Falsification Notice must comply to EBC specification EB 2678 Appendix D, refer to the link specified on the purchase order.

9.29. Prohibition:

9.29.1 The supplier shall ensure that only new and authentic materials are used in product to be delivered to HHV. The supplier agrees and shall ensure that Counterfeit Parts are not contained in products delivered through the implementation of policies that include prevention methods to protect against the use of Counterfeit Parts.

9.30. Prevention:

9.30.1 The supplier shall only purchase products, to be delivered or incorporated in an assembly to HHV directly from the Original Component Manufacturer (OCM) /Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized distributor. The supplier shall maintain original component / Equipment Manufacturer (OEM) certificates for all Electronic, Electrical and Electromagnetic components and devices including those items in assemblies or subassemblies delivered as part of this purchase order.

9.30.2 OCM/OEM Certificates of Conformance shall be available upon request.

9.31. Material procured from a 'grey/gray market':

9.31.1 Grey market is where goods are traded outside of the manufacturers' authorised trading channels. Buying from this grey market, although not illegal, does carry risk. This is when counterfeit products are most likely to enter the supply chain with potentially catastrophic results.

9.31.2 Suppliers for HHV are advised against using the grey market for sourcing components. In doing so, there is a risk to the integrity of the customer's end product, and the reputation of their company. This information should be shared with HHV at the earliest opportunity.

9.32. Notification:

9.32.1 In the event supplier becomes aware or suspects that it has furnished Counterfeit Parts under this Purchase Order, the supplier shall promptly disclose such item(s) to the Buyer and replace such item(s) with item(s) acceptable to Buyer at no increase in price, cost or fee.

9.33. Remedies:

9.33.1 In the event that Products delivered under this Purchase Order are, or include, Counterfeit Parts.

9.33.2 The seller shall promptly investigate, analyse and report in writing to the buyer. The parties shall agree upon the appropriate course of action.

9.34. Flow Down:

9.34.1 The supplier shall flow the requirements of this provision to its sub-tier suppliers at any tier for the performance of this Purchase Order.

9.35. Assembly:

9.35.1 The assembly supplier shall maintain a counterfeit prevention program and flow the requirements down to all their sub-tier suppliers to prevent the inadvertent use of counterfeit parts and materials.

9.35.2 Compliance with these requirements is in no way to be interpreted as relieving the supplier from their responsibility to assure that Counterfeit Parts are not contained in products delivered. Any deviations from this clause must be approved in advance, in writing, by HHV.

9.36. ROHS Compliance:

9.36.1 If required by HHV, seller shall provide information regarding RoHS compliance. The Restriction of the Use of Certain Hazardous Substances (RoHS) Directive, 2002/95/EC, 2011/65/EU, with Amendment 2015/863, was enacted by the European Community to minimize the impact of end-of-life electrical and electronic equipment on the environment.

9.36.2 The Directive restricts the use of certain substances above specified amounts in electrical and electronic products. Seller may be requested to provide information on the RoHS compliance status, along with any exemptions used, on the items supplied under this Purchase Order, and to confirm, as needed, part compliance, process compatibility, and traceability. The identification scheme employed must clearly differentiate compliant parts from noncompliant parts.

9.36.3 For further details: - https://www.gov.uk/guidance/rohs-compliance-and-guidance

9.37. Conflict Minerals Expectation:

9.37.1 Suppliers are expected to supply materials to HHV that are "DRC Conflict-Free". DRC includes the countries of Democratic Republic of Congo, Republic of Congo, Central Africa Republic, South Sudan, Zambia, Angola, Tanzania, Burundi, Rwanda and Uganda. Suppliers are expected to adopt policies and management systems with respect to conflict minerals and to require their suppliers to adopt similar policies and systems.

9.37.2 HHV expects suppliers to establish their own due diligence program to ensure conflict-free supply chains. In the event HHV determines that a supplier's efforts to comply with this Policy have been deficient and the supplier fails to cooperate in developing and implementing reasonable remedial steps, HHV reserves the right to take appropriate actions up to and including discontinuing purchases from the supplier. Under the definition of "DRC Conflict-Free," products supplied to HHV.

9.37.3 Do not contain tantalum, tin, tungsten or gold (3TG) as elements necessary to their production or functionality.

9.37.4 If products supplied to HHV do contain these minerals, the minerals must originate outside the DRC, come from scrap or recycled sources, or be supplied from smelters that have been validated by an independent private sector party to be conflict-free. Certified conflict-free smelters are validated as compliant to the EICC (Electronic Industry Citizenship Coalition) conflict free smelter (CFS) protocol using the CFS Compliant Smelter List. Through the CFS protocol, smelters are audited globally; the list of compliant smelters and refiners is posted at www.conflictfreesmelter.org.

9.37.5 For further details: - https://www.gov.uk/guidance/conflict-minerals

10 COMMUNICATIONS

10.1. Buyer: Primary point of contact for all purchasing and related issues. The buyer must be informed of any issue that impacts quality, delivery, and or cost.

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10.2. Supplier Quality Engineer: Primary point of contact for all quality related issues and correspondence. Supplier Corrective Action Requests, Supplier Deviation Requests, and any quality related requirements must be managed in coordination with the Supplier Quality Engineer and the Buyer.

11 SHIPPING LABEL AND PACKING SLIP REQUIREMENTS

11.1. At a minimum, all Shipping Labels and Packing Slips must include:

- HHV PO Number
- Quantity (Pieces)
- ** If applicable HHV S _ Number
- ** IF it is GEN stated on the PO on the outside
- Supplier Name & Manufacturing Location
- Package to protect parts from movement and transit damage. Exterior protection required for sealing surfaces, finishes, threads. Interior protection required for threads and finishes.
- Any other special condition HHV should be aware off e.g., Temperature.

11.2. Parts should be suitably packaged to avoid deterioration and damage due to transportation/storage. This may be in the form of bubble wrap >4 mm, may contain desiccant and ensure the parts do not damage each other so segregation within the bag.

11.3. Best commercial packaging requirements are imposed to ensure the material does not get damaged in transit or storage.

11.4. No nails are allowed to use in the packaging boxes only screw to be used.

11.5. ** Outside of each individual item and boxes should be labelled with complete details (HHV PO & line-item number, Part Number, Part description, CFTI S, No etc.).

12 ACRONYMS

HHV - Hale Hamilton Valves

QMS - Quality Management System

AVL - Approved Vendor List

C of C - Certificate of Conformity

PO - Purchase Order

COTS – Commercial off-the-shelf

PED - Pressure Equipment Directive /Pressure Boundary

PTFE - Polytetrafluoroethylene

FAIR - First Article Inspection Report

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CSI - Customer Source Inspection

AQL - Acceptance Quality Level

Cp - Process Potential Index

Cpk - Process capability Index

Gauge R&R - Gauge Repeatability and Reproducibility

FOD - Foreign Object Debris/Damages

NCR - Nonconformance Report

CAPA - Corrective Action and Preventive Action

NADCAP - National Aerospace and Defence Contractors Accreditation Program

SPC - Statistical Process Controls

PCN - Personnel Certification in Non-Destructive Testing

BINDT - British Institute of Non-Destructive Testing

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals

OCM - Original Component Manufacturer

OEM - Original Equipment Manufacturer

ROHS - Restriction of Hazardous Substances Directive

DPPM - Defect Parts Per Million

SOTD -Supplier on Time Delivery

LTC - long term Contracts

STC - Short Term Contracts

FPA - Fixed price agreements

GQAR - Government Quality Assurance Representative

DRC- Democratic Republic of Congo

EICC- Electronic Industry Citizenship Coalition

CFS- Conflict free smelter

IACS- International Association of Classification Societies

NPL-National Physical Laboratory

UKAS- United Kingdom Accreditation Service

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13 DEFINITIONS

Certificate of Conformance - A legal document provided by the supplier that states their compliance to all applicable drawing, specification, and purchase order requirements.

Commercial Off the Shelf (COTS) - Items that are ready-made and available for sale, lease, or license to the general public.

Concession - A written authorization to accept an item which has been manufactured with deviations from the current approved design and purchase order.

Containment – process of identification of items which do not conform to the current approved design, with an emphasis on protecting the end customer.

Counterfeit parts – Unauthorized copies of product.

Escape – supplier product that is discovered to be non-conforming after delivery to HHV.

First article Inspection FAIR - the first items produced by a supplier against a design.

Non-conforming product - Any material, process, part, or product in which one or more characteristics do not conform to the requirements of the drawing, specification, or purchasing contract, or other applicable product description.

Purchase Order - is a contractual document sent to a supplier, authorizing production and shipment of product at specified price and terms.

Permit - A specific written authorization granted prior to the manufacture of an item to deviate from the requirement(s) of an item's currently approved design.

Quality Management System (QMS) - The collection of documents, procedures and work instructions that are used to define and effectively implement the organizations Quality system.

Rework - Action on non-conforming product to make it conform to the requirements.

Repair - Action on non-conforming product to make it acceptable for the intended use. Repair is distinguished from rework in that the item after repair does not completely conform to the applicable engineering requirements.

Root cause corrective action - action taken to eliminate the cause of a non-conformity against the design and purchase order.

First Level Item - First Level items are items where the consequences of failure of a system or piece of Equipment that would lead to loss of the Submarine. It is mandated by the MOD, that these parts require objective evidence of quality and unique traceability of records in addition to full inspection. All RED items will be classified QCA on the QASOR unless otherwise stated.

14 REFERENCED DOCUMENTS

AS9100 – Quality System -Aerospace -Model for Quality Assurance in Design, Development, Production, Installation, and servicing.

AS9102- Aerospace First Article Inspection Report.

AS9103- Aerospace Standard establishes variation management requirements for Key Characteristics.

AS6081- Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition - Distributors AS6081.

ISO 2859- Sampling procedure for inspection by attributes.

ISO/IEC 17025- Specifies the general requirements for the competence, impartiality, and consistent operation of laboratories.

NAS 412- National Aerospace Standard for FOD Prevention.

AS5553- Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition.

MIL-PRF-121- Performance specification: barrier materials, greaseproof, waterproof, flexible, heat-sealable.

MIL-PRF-131- Performance specification: barrier materials, water vapor proof, greaseproof, flexible, heat-sealable.

ANNEX 1. Certificates Anomaly Check Sheet

CIRCOR	Certificates Anomaly check sheet	Document Rev No :			04
		HHV PO Number :			
S.No	Inspection checks	Verification			Remarks
		N/A	Yes	No	
1	All type 3.2 and 3.2 intent material shall be verified by an internationally recognised independent inspection authority i.a.w BS EN10204. (e.g. Lloyds Register) and must be witnessed - Mechanical & Chemical tests.				
2	Where applicable **"Lloyds Register Inspection Certificate"** for 3.2 intent material must be available and certificate should be stamped accordingly. In the inspection certificate the following details must be traceable 1) Independatnt lab test report number (Mechanical, Chemical) 2) Cast / Heat batch number 3) Mill certificate number 4) NDT certificates number etc.				
3	Time vs temperature (Heat treatment) graph should be attached ,If the material has HT.				
4	3.2 intent material testing must be undertaken by a laboratory, UKAS certified or EN 17025 approved.				
5	Legibility of Mil certs , special process supplier certs,COC etc. (i.e. All information must be clear, including Lloyds Stamp for 3.2 intent material). Be aware that the quality of the cert diminishes each time it is re-scanned. So ensure original cert from Mill is used for scanning.				
6	Header (i.e. Must show who the Supplier is with address details).				
7	Must state HHV Purchase Order Number - for tier 1 Supplier , P/O traceability must be demonstrated. Tier 1 Suppliers CofC to state HHV part / drawing / specification number & revision/issue number on the CofC and Delivery Note. (e.g. NAB-BAR-01-3P, DSTAN 02-833 PT2 GR1 issue etc.) Certs for Special Processes (UT, Dye Penetrant, etc- Must have correct specification) Test report must state correct raw material specification.				
8	Size. (e.g. diameter, length etc.) Quantity supplied into HHV by tier 1 on CofC & Del. Note.				
9	Linking Each Page (i.e. Heat No/Cast No/Unique Reference No). - This should be validated from the Mill certificate and copied in its entirety on to all subsequent certificates into HHV.				
10	Signature on all CofC's - Electronic signatures are acceptable. Print Name of Signatory & Position of Signatory on all CofC's				
11	Date issueance of CofC, Manufacture Date, Test Date of Supplied Goods or Service				
12	NDT / Special Process Operators PCN qualification was valid at the time of test. (Note their home address should be omitted in the certs)				
13	Check and verify the standard stated in the Mill cert, UT cert , dye pen cert etc.(DSTAN-02-833-PT2 GR1 issue 3 ,Def Stan 02-729 Pt 5 Iss2 & Iss3 etc.) is correct to the standard stated in the HHV specification.				
14	Certs for Bought Out (BO) Items do not normally have drawings-Refer to PO where no drawing exists. CofC shall comply/state HHV PO description and part number.				
15	Certs for Rubber Items must show the Part Number, material type, cure date & shelf life. (ref. to -C & -C12)				
16	Suppliers in the "Chain" must "Link" (i.e. A supplied B, B supplied C etc.).				
17	Each Sub Tier Supplier must hold current ISO/QMS certificates. Sub tier map				
18	Check BAE approved procedure and issue number stated in special process cert is correct.				
19	Free from Mercury Contamination stated on CofC and Mill Certificate.				
20	Check the unit of measurement and values is correct with the standard. Is consistent with the Suppliers certificate.				
21	CofC shall be in English or have an English translation.				
22	Country of Origin to be declared.				
Remarks /Comments		Supplier Name :			
		Verified by :			
		Date:			

Issue	Created By	Date	Change	Approved By	Date
05	Sudhagar Sriramulu	17/03/25	Annex 1 deleted all cross references to annex deleted throughout. New Section 2 added following sections renumbered. Para 5.25 & 5.27 updated, Para 6.6.1 ref to supplier concession deleted. Para 8.6 & 8.7 added, Para 9.2.1 updated. Para 9.3.4 & 9.3.5 added. Para 9.4.1 b) & f) updated and i), j) k), & l) added. Para 9.5.2 added. Para 9.6.1 item 1) rewritten & item 12) added. Para 9.11.1 rewritten. Para 9.13.5 d) added. Para 9.13.11 d) rewritten. Para 9.20 additional information added ref CFTI. Para 11.1 additional requirements added. Para 11.4 added.	Quality Manager	24/03/25

ANNEX 2. Non-Conformance Report

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Non-Conformance Report			NCR No:	
Supplier/HHV Process Area:		Date Raised:		
Originator:	Choose an item.	Originator's Department:		
Part Number:		Item Description:		
Lot Quantity		Rejected Qty.:		
Batch/ WO No:		Purchase order #:		

Line #	Qty.	Drawing Requirement	Non-Conformance (Actual):	Tool/Gage#

Pictures or Drawing : *(Ref attachment)*

Quality Disposition : *(to be filled out by Quality Department)*

Floor Purge Required ☐ Stock Purge Required ☐ Work In Progress (WIP) ☐

DPPM	Reason (if No) :
Yes ☐ No ☐	

CAR Required	Date Issued :	CAPA Closed
Yes ☐ No ☐		Yes ☐ No ☐
Defect Classification	**Dimensional**	

Supplier Notification : *(to be filled out by purchase department)*
(Send back this CAPA filled in report while returning the ports after rectification/repair to Circor)

MRB -Approvals

Use As It's ☐ Concession ☐ Scrap ☐	Rework @ Circor HHV ☐ WO #:	RTV: Re-Work @ Supplier ☐ RMA #	RTV: Credit / Replacement ☐
QUALITY :	PURCHASE :	ENGINEERING :	STORES / OPERATION :
DATE :	DATE :	DATE :	DATE :

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ROOT CAUSE: *A factor that caused a nonconformance and should be permanently eliminated through process improvement.*
(Complete Why Why Analysis report in the attached sheet to identify the Root Cause)

CONTAINMENT PLAN: *Action required to contain non-conformity. (Within 24 Hrs.)*	Date of Containment: Date of completion: Lead Contact:
CORRECTIVE ACTION PLAN: *Action to eliminate cause nonconformity/ undesirable situation.* *(within 15 Business working day)*	Date of Containment: Date of completion: Lead Contact:

END OF DOCUMENT

Issue	Created By	Date	Change	Approved By	Date
05	Sudhagar Sriramulu	17/03/25	Annex 1 deleted all cross references to annex deleted throughout. New Section 2 added following sections renumbered. Para 5.25 & 5.27 updated, Para 6.6.1 ref to supplier concession deleted. Para 8.6 & 8.7 added, Para 9.2.1 updated. Para 9.3.4 & 9.3.5 added. Para 9.4.1 b) & f) updated and i), j) k), & l) added. Para 9.5.2 added. Para 9.6.1 item 1) rewritten & item 12) added. Para 9.11.1 rewritten. Para 9.13.5 d) added. Para 9.13.11 d) rewritten. Para 9.20 additional information added ref CFTI. Para 11.1 additional requirements added. Para 11.4 added.	Quality Manager	24/03/25