Supplier Quality Manual

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Introduction to Manual

This manual has been developed as a tool in communicating our requirements for ISO 9000 and AS9100 compliance. Specific requirements for aerospace are noted in **bold.** Purchase orders will note when aerospace requirements apply.

H & H Swiss (HHS) requires suppliers to control the quality of product and services sold to HHS.

Scope

The scope of this manual is limited to materials, processes and services that affect the quality of the products supplied to HHS customers.

Supplier Responsibilities

It is the responsibility of the supplier to understand and ensure compliance with this manual and any quality requirements as defined by the purchase order.

It is the Supplier's responsibility to flow-down these requirements to sub-tier/sub-contract suppliers.

It is the Supplier's responsibility to advise HHS of changes in product and/or process, changes of suppliers, changes of manufacturing facility location, and where required, obtain written authorization from HHS Quality Department prior to proceeding with changes.

Unless otherwise specified, all records must be kept for a minimum of ten years from date of shipment, unless otherwise specified in writing from HHS.

HHS, its customer and regulatory authorities have right of access to the applicable areas of all facilities, at any level of the supply chain involved in the order and to all applicable records.

Subcontractor and their sub-tiers shall ensure that all personnel are aware of:

- **their contribution to product or service conformity**
- **their contribution to product safety**
- **the importance of ethical behavior**

- Quality Management System Requirements

1.1 Quality Management System

Each HHS supplier is required to maintain an effective quality system compliant to latest revision of ISO 9001, AS9100, NADCAP, ISO 17025 or other internationally recognized standard as applicable to the organization unless specifically waived by HHS Quality management..

1.2 Quality Manual and Procedures

The supplier, as requested, will furnish HHS with a copy of the supplier's Quality Manual and supporting procedures. This includes detailed documents and work instructions specific to production of material for HHS.

1.3 Certificate of Conformance

When requested, all suppliers shall provide a Certificate of Conformance or Calibration, as applicable. Each shipment must be signed by an authorized representative.
The supplier shall confirm compliance with the drawing, specification, and/or any special processes as described on the Purchase Order. Without this documentation, the parts will be placed on hold until required documentation is provided.
The following information is required on the Certificate of Conformance at a minimum:

- Supplier Name, address and contact information
- Purchase Order Number
- HHS part number, revision, lot, and quantity
- Specification Number including revisions

Additional information may be required for parts returned for rework

- Identify when parts have been reworked
- HHS DMR number

1.4 Control of Sub-tier Suppliers

Suppliers are responsible for the quality of materials and components provided by their sub-tier suppliers and sub-contractors. HHS suppliers must impose controls on their sub-tier suppliers that provide quality results and documentation comparable to the controls applied to suppliers by HHS. They may include:

- **Compliance to statutory and regulatory requirements**
- **Controls to ensure that the sub-tier suppliers of components used are those approved by HHS.**
- **Controls to ensure that customer approved special process suppliers are used.**
- **Special Process subcontractors must be NADCAP registered in e-audit.net**
- **Use appropriate controls of direct and sub-tier suppliers to ensure requirements are met**
- **Prevent the use of counterfeit parts**
- **Prevent, detect and remove all foreign objects and debris**
- Supply test specimens for inspection, verification, investigation and auditing when specified on the purchase order
- Evaluation and qualification of sub-tier supplier facilities
- Control to ensure that raw materials used meet HHS requirements
- Part qualification, including sample inspection and process controls if requested.
- Control of drawings/revisions
- Control of nonconforming material
- Corrective action and preventive action programs
- A continuous quality improvement program

2.0 Supplier Qualification Process

All suppliers of production materials to HHS must be qualified suppliers.
Third party certification by a qualified registrar is preferred but suppliers may be qualified by customer approval, desktop or site audit at HHS discretion.

All suppliers to HHS will periodically be reevaluated through the use of quality performance data including; nonconforming products, corrective action response and on time shipments. This may also include on-site assessments as deemed necessary.

3.0 Part Qualification

Sample Submissions and/or on-site inspections may be required when any of the below conditions apply:

Category	Event
Initial Submission	• New part produced by supplier
Engineering Change	• Change that affects the part geometry or material
Correction of Discrepancy	• Response to discrepancy discovered in initial submission • Response to Corrective Action Request or rejection of regular production
Process Change	• Change in manufacturing process/handling method • Change in special process supplier
Production Location Change	• New or additional manufacturing source of previously approved part

The supplier is responsible for submitting all sample data requested by HHS. HHS and the supplier will agree on the number of the samples to be checked and submitted with the first article data. Where possible, all First Article documents should be submitted to HHS in electronic format.

First article submissions shall be per AS9102

In some cases HHS personnel may wish to be present during the initial production run. This will allow HHS to validate and verify the process before any product is shipped

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3.1 Traceability

The supplier must plan for traceability of components. The plan must include sizes of lots or batches.
Special process lots shall not be mixed.

4.0 Drawings/Changes

4.1 Process Changes, Engineering Changes

Suppliers must have systems in place to ensure changes to drawings and/or specifications are communicated throughout their organization.

5.0 Discrepant Material

If suppliers discover discrepant product the supplier must:

a. Notify HHS of the nonconforming product
b. Obtain written approval from HHS Quality Department prior to reworking or repairing parts.

6.0 Corrective Action System

HHS requires suppliers to utilize a closed-loop corrective action system when problems are encountered in their manufacturing facility, or after nonconforming product has been shipped to HHS.

6.1 Corrective Action Process Approach

The corrective action system utilized should be similar to the process outlined below. The focus should be on identifying the root cause(s) of the problem and taking action to prevent its recurrence.

- Use a team approach
- Describe the problem
- Contain the problem
- Identify and verify root causes(s)
- Implement permanent corrective actions
- Verify corrective action effectiveness
- Close the corrective action

6.2 Supplier Corrective Action

HHS issues a Corrective Action Request (CAR) to a supplier when non-conforming parts are found at incoming inspection, in production, in test, or by an HHS customer. They can also be issued as a result of a supplier audit. The supplier is required to respond by returning the CAR back to HHS completed. The following provides a brief outline of the CAR procedure that suppliers to HHS should comply with:

- HHS requires that the supplier take immediate containment action upon notification of the nonconformance. The supplier must submit a written response to HHS, reporting the Supplier's initial observation and defining the interim containment plan within 48 hours of notification. The Supplier's Initial Observation is an acknowledgement that the Supplier has been informed of the problem, and has begun to gather information about the problem.

- The containment plan must clearly define the containment actions at the supplier's facility to assure that no nonconforming product is shipped to HHS. If suspect product has already been shipped, the supplier must address all suspect stock in transit and any stock at HHS. The supplier will assist HHS in identifying customer risk by identifying all suspect lot numbers and associated quantities involved. Response is expected within 5 days.

- Within 2 weeks after the original notification, the supplier must report the results of the Supplier's investigation into the cause of the problem.

- Within 3 weeks from the initial notification date, the supplier must submit the corrective action to be taken to prevent recurrence of the problem, and the effectivity date (the date the corrective action will be implemented.). .

- The supplier is required to keep HHS informed of progress towards implementing the corrective action. When corrective action implementation is complete, the supplier and HHS shall verify that the corrective action is effective in preventing the problem's recurrence.

7.0 Supplier Monitoring

HHS continually monitors its suppliers to ensure they continue to meet HHS requirements, and to ensure that the supplier continues to ship acceptable parts. This may consist of:

- A quality management system surveillance audit at the supplier's facility
- An on-site audit of the supplier's control plan
- Results of incoming inspections.
- Inspection audits of product at the supplier's facility.
- Review of supplier-furnished data packages
- A supplier progress review meeting conducted periodically at the supplier's site or HHS to review supplier performance and progress
- HHS, our customer, regulatory authority, and / or government inspector shall, upon reasonable notice, have right of access to enter any works, warehouse, or other premises under the supplier's control for the purpose of product compliance verification,

7.1 Inspection Audits

HHS expects its suppliers to furnish material that conforms to all requirements, and that does not need to be inspected when received. Material is inspected on a lot-by-lot basis. HHS uses a C=0 sampling plan (see example in **Appendix 1**) that rejects the entire lot when a single non-conforming part is found in the sample. At HHS's discretion, in order to meet production requirements, rework or 100% sorting may be done as necessary at the supplier's expense.

7.2 Supplier-Furnished Lot Documentation

HHS may require the supplier to furnish inspection, test, process performance, or other quality data with each shipment to ensure that the product meets HHS requirements. When data submission is required, the data must accompany each shipment, or be e-mailed or faxed to HHS at the same time the lot is shipped. All documentation must be clearly identified with HHS part number, and the supplier's lot number.

Appendix 1

C = 0 SAMPLING PLAN

	.010	.015	.025	.040	.065	.10	.15	.25	.40	.65	1.0	1.5	2.5	4.0	6.5	10.0
LOT SIZE	**SAMPLE SIZE**															
2 to 8	*	*	*	*	*	*	*	*	*	*	*	*	5	3	2	2
9 to 15	*	*	*	*	*	*	*	*	*	*	13	8	5	3	2	2
16 to 25	*	*	*	*	*	*	*	*	*	20	13	8	5	3	3	2
26 to 50	*	*	*	*	*	*	*	*	32	20	13	8	5	5	5	3
51 to 90	*	*	*	*	*	*	80	50	32	20	13	8	7	6	5	4
91 to 150	*	*	*	*	*	125	80	50	32	20	13	12	11	7	6	5
151 to 280	*	*	*	*	200	125	80	50	32	20	20	19	13	10	7	6
281 to 500	*	*	*	315	200	125	80	50	48	47	29	21	16	11	9	7
501 to 1200	*	800	500	315	200	125	80	75	73	47	34	27	19	15	11	8
1201 to 3200	1250	800	500	315	200	125	120	116	73	53	42	35	23	18	13	9
3201 to 10,000	1250	800	500	315	200	192	189	116	86	68	50	38	29	22	15	9
10,001 to 35,000	1250	800	500	315	300	294	189	135	108	77	60	46	35	29	15	9
35,001 to 150,000	1250	800	500	490	476	294	218	170	123	96	74	56	40	29	15	9
150,001 to 500,000	1250	800	750	715	476	345	270	200	156	119	90	64	40	29	15	9
500,001 and over	1250	1200	1112	715	556	435	303	244	189	143	102	64	40	29	15	9

*Indicates entire lot must be inspected

NOTE: The Acceptance Number in all cases is ZERO.