



ROBERTS
SWISS, INC.

PRECISION SWISS MACHINED PARTS

**Supplier Quality
Assurance Manual**

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Section 1.0 - Introduction

1.1 Purpose

The intent of this manual is to define the quality requirements necessary to ensure a successful partnership between Roberts Swiss and our suppliers. This manual defines the required quality standards for materials, parts, and services purchased from suppliers.

1. Suppliers must be capable of providing a defect-free product that meets our specifications, industry specifications, and is delivered on time.
2. Suppliers must notify Roberts Swiss of any planned changes before shipping previously acceptable product to Roberts Swiss, to allow Roberts Swiss with the knowledge of change and the right of approval under certain circumstances. These changes include, at a minimum:
 - o Product or process specifications,
 - o Systems,
 - o Process, Equipment, Tooling, Process Flow
 - o Sub-supplier
 - o Processing site
 - o Ability to meet regulatory requirements such as RoHs, DFARS or Conflict Minerals.
3. All design or process specification changes, when applicable, will be communicated to the supplier by a Roberts Swiss buyer and may require a Production Part Approval Process (PPAP) submission upon request.
4. Suppliers are expected to be 3rd party certified to the latest edition of ISO 9001. The requirements outlined in this Supplier Quality Assurance Manual are the requirements that go above and beyond the requirements of ISO 9001.
5. Suppliers must allow and provide Roberts Swiss, its customers, and regulatory bodies, if applicable, access to all facilities involved in the order, including all applicable records.

This manual is a supplement to, and does not replace or alter other terms and conditions covered by purchase documents, contracts, specified warranty agreements or any Roberts Swiss requirements.

1.2 Scope

This manual is applicable to all existing and potential new suppliers of purchased materials, parts, and services. It outlines the minimum activities and quality performance required of the supplier's quality management system and the delivery of material. It is our intent to partner with our suppliers who have demonstrated a commitment to quality and continuous improvement in the product they produce or services provided. We intend to develop a desirable and mutually beneficial long-term relationship with our suppliers.

This manual:

1. Outlines the process for initially becoming an Approved Supplier to Roberts Swiss and describes tools for continuous improvement necessary to become a Qualified Supplier. It also addresses our ongoing performance monitoring system.
2. Forms the basis and requirements for any audit conducted by Roberts Swiss on its suppliers' processes and systems.

The supplier is responsible for reviewing any updates to this manual and adhering to the requirements.

Section 2.0 - Supplier Development

2.1 Continual Improvement

It is our suppliers' responsibility and in their best interest to take it upon themselves to further develop their own capabilities to prevent defects, reduce variation, and continuously improve their systems.

Roberts Swiss, of course, wants all of our suppliers to engage in continual improvement when we send corrective actions resulting from audits or defective product shipped to us. We expect this to occur anytime we send you a Corrective/Preventive Action request (C/PAR). When a C/PAR is received by a supplier, we expect timely and effective responses that eliminate the root causes of the problem in which the system is blamed (not people, tooling, designs or machines) and therefore changed.

Suppliers must place emphasis on defect prevention rather than detection to provide Roberts Swiss with defect-free product. The supplier must actively participate in mistake-proofing applications and SPC methods as a proactive approach in achieving high Cpk values and the associated reduction in variation.

2.2 Business Planning

The supplier is expected to continuously review the state of its business with respect to future demand and growth and meeting the future needs of Roberts Swiss. The supplier is expected to do this while driving down PPM (parts per million defectives) and improving manufacturing efficiencies.

Roberts Swiss provides "Week of" delivery dates on all new orders to assist the supplier in its planning processes.

Section 3.0 - Supplier Management

The Roberts Swiss supplier base consists of organizations supportive of our business needs. Roberts Swiss utilizes controlled methods through which suppliers are evaluated, selected, and monitored.

Criteria for evaluation and selection of suppliers for placement on the Roberts Swiss Approved Supplier List is based on the supplier's ability to consistently deliver defect-free products and/or services, meet or exceed our delivery requirements, be globally cost competitive, and be responsive to our needs, as defined below.

3.1 Initial Selection of Supplier

As part of Roberts Swiss' initial selection of its suppliers, the supplier

1. Is required to complete and send an acceptable Vendor Quality Survey (Appendix 1).
2. May be subject to an on-site audit by a Roberts Swiss auditor who will confirm what is recorded on the Survey

Roberts Swiss may choose to assess its suppliers against this Survey and this Supplier Quality Assurance Manual at any time and may be used for certain key suppliers up to once per year. Follow up assessments may be necessary as a result of any on site assessment.

3.2 Quality Management System

Suppliers are expected to implement a robust Quality Management System (QMS) that promotes defect free products through prevention, monitoring, and on-going improvement.

Suppliers are required to comply with all requirements of the most recent ISO 9001 based standard. Temporary provisions may be made for new suppliers who are not ISO 9001 certified. These suppliers will need to show objective evidence of their quality reputation within industry, will have to produce acceptable samples with records of such, in accordance with Roberts Swiss requirements.

Suppliers are responsible for providing the latest copies of all of active and applicable Certificates or have them available on their websites.

3.3 Supplier Status and Performance Monitoring

Based on the initial assessments, approved suppliers are identified as:

1. Approved
2. On Probation
3. Do Not Use

Approved “key” suppliers (as determined by dollar volume of work, criticality of materials/services, and/or history of problems) will be evaluated on a quarterly basis against a variety of performance indicators as defined on the Performance Evaluation Summary Report (Appendix 2). The results of the evaluation can of course alter the supplier’s status.

“Key” suppliers will receive the quarterly Summary Report and any expected actions and/or C/PARs soon after the evaluations are complete. A supplier can improve its status if effective and timely actions and/or C/PARs are completed.

Any supplier that loses its required ISO certifications is no longer considered “Approved” and as such, will be considered “On Probation” until a corrective action plan is put in place and implemented. It is the supplier’s responsibility to notify Roberts Swiss if it has lost its Certifications.

“On Probation” suppliers that do not show improvement or the willingness to improve, may be removed from the Approved Supplier List and potentially lose current and/or future business with Roberts Swiss.

Any suppliers receiving a “Do Not Use” rating will be expected to provide satisfactory corrective action or be removed from the Approved Supplier List.

The supplier rating is a key indicator of the effectiveness of the supplier’s management systems. A highly rated “Approved” supplier gains the benefit of having opportunities for forthcoming projects

3.4 Supplier Management of Suppliers

The supplier is responsible for the quality of materials provided by their suppliers and will invoke a system of corrective actions when their suppliers do not meet quality and delivery needs.

As such, the supplier is responsible for flowing down all of Roberts Swiss requirements to its suppliers on purchasing documents or referenced by purchasing documents. :

3.5 Supplier Quotation Requests and Purchase Order Acknowledgments

Roberts Swiss will send suppliers Requests for Quote. It is suggested that the supplier acknowledges receipt of the request and associated relevant documentation within a reasonable timeframe.

An acknowledgement of receipt of purchase order within a maximum 24 hours is also required. Any deviation from due dates and quantities should be communicated in writing as part of the order acknowledgement. Lack of acknowledgement within the agreed time frame will constitute acceptance of terms specified on the purchase order.

Section 4 – Regulatory Compliance

4.1 Conflict Minerals

It is Roberts Swiss policy to prohibit the use of “Conflict Minerals”. Suppliers when applicable will be asked to certify that their products (i.e. raw materials, tooling, plating etc.) are free of conflict Minerals.

Conflict minerals are minerals mined in conditions of armed conflict and human rights abuses, mostly in the eastern provinces of the Democratic Republic of the Congo, by the Congolese National Army, and various armed rebel groups, including the Democratic Forces for the Liberation of Rwanda (FDLR) and the National Congress for the Defense of the People (CNDP), a proxy Rwandan militia group. The profits from the sale of these minerals finance continued fighting in the Second Congo War, and control of lucrative mines becomes a focus of the fighting as well. The minerals are Tin (cassiterite), Tungsten (wolframite), Tantalum (coltan), and Gold. These are sometimes referred to as “the 3T’s and gold”, 3TG, or even simply the “3T’s”.

4.2 RoHS

It is Roberts Swiss policy to restrict the use of “**Hazardous Substances**”. Suppliers when applicable will be asked to certify that their products (i.e. raw materials, tooling, plating etc.) are free of Hazardous substances.

The **Restriction of Hazardous Substances Directive 2002/95/EC, RoHS**, short for **Directive on the restriction of the use of certain hazardous substances**

RoHS restricts the use of the following six substances:

1. Lead (Pb)
2. Mercury (Hg)
3. Cadmium (Cd)
4. Hexavalent chromium (Cr⁶⁺)
5. Polybrominated biphenyls (PBB)
6. Polybrominated diphenyl ether (PBDE)

Customers supplying materials that contain Hazardous Substances restricted in RoHS must identify the material as containing a hazardous substance(s) and notify Roberts Swiss regarding handling and safety precautions.

4.3 DFARS

When required, Roberts Swiss will ask Suppliers to certify that their products (i.e. raw materials) are DFARS compliant.

DFARS stands for The **Defense Federal Acquisition Regulation Supplement**. The Berry Amendment, United States Code Title 10 Section 2533a, requires the United States Department of Defense to purchase certain items, including those made from “specialty metals” such as stainless steel, exclusively

from American sources. The follow-up regulations, Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.225-7014, *Preference for Domestic Specialty Metals*, prohibit prime government contractors and their suppliers at every tier from incorporating "specialty metals" (as defined in the clause) into military parts, components, and/or end-item deliverables, unless the specialty metals have been melted in the United States or other qualifying country listed in DFARS 225.872-1 (currently Australia, Belgium, Canada, Denmark, Egypt, France, Germany, Greece, Israel, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, or United Kingdom).

Section 5.0 - Manufacturing Capability and Process Controls

5.1 Statistical Process Control

Some "key" suppliers, at the discretion of Roberts Swiss, may be requested to perform Statistical Process Control (SPC), provide evidence of process capability, and demonstrate an ability to maintain processes in a state of statistical control during each applicable stage of the manufacturing process. In such cases, the supplier must

1. Demonstrate proficient application and knowledge of Statistical Process Control (SPC).
2. Utilize the process capability (Cpk) index to assess machine fitness to produce product. Capability Studies should be used during the initial stages of product introduction to assess whether or not a process and or machine is capable of meeting the specifications. A state of statistical control must be attained prior to calculation and evaluation of Cpk.
3. Maintain a Cpk of 1.33 or greater on features identified as "Critical"
4. Control Charts (i.e. X-Bar & R) are strongly encouraged to be used real time, in production, to make production decisions, if a process demonstrates an out of control condition.
5. Mistake-proofing methodologies, supplier controls, improved tool management programs, and other improvements must be considered to improve processes that are not capable.
6. Perform first piece inspection and approval prior to mass production. This must include an approval by a qualified employee.
7. Supply Gage R&R data or other measurement system analysis (MSA) as required.
8. Clearly document and report statistical findings.

5.2 Handling Requirements for Processing Roberts Swiss Parts

All suppliers are expected to follow industry quality standards and that all products being processed through their operations are handled with care to prevent damage, and that adequate measures are taken to prevent contamination and mixing of parts. This includes:

1. Carefully removing parts from package they were received in.
2. Processing parts in accordance with the purchase order and print requirements and in an environment that prevents contamination and/or mixing of other parts during processing.
3. Packaging parts in new plastic trays or bags and placed in new boxes.
4. Re-packaging parts in a new plastic bag within a Roberts Swiss plastic container, when applicable, after cleaning out the container of any unprocessed parts.

5.3 Product Traceability

All suppliers must have a lot/batch identification system that distinguishes one lot from another when shipping finished product/material to Roberts Swiss. Each lot of material must be clearly identified on the Material or Processing Certifications sent to Roberts Swiss per the purchase order requirements. All material lots must be traceable to raw material lots as identified by the supplier's sub-suppliers. Suppliers are furthermore required to maintain all such traceability records.

5.4 Packaging

All products shall be packed, marked and otherwise prepared for shipment in a manner which is acceptable to common carriers for shipment at the lowest rate possible while ensuring adequate and safe arrival of the product to Roberts Swiss.

Section 6.0 - Non-Conforming Material Control and Corrective Action

6.1 Advanced Notice of Non-Conforming Material

If a supplier detects non-conforming product prior to shipment to Roberts Swiss, the supplier must immediately determine the extent of the problem and take action to immediately correct the problem. If suspect material is released to ship before it was discovered, the supplier must immediately notify Roberts Swiss, identify what material is suspect, potential non-conforming condition.

Upon notification and where practicable, the suspect product will be held at Roberts Swiss and returned to the supplier for disposition. The returned parts or materials will not count against Supplier Evaluation Summary for the quarter, provided the notification is received prior to acceptance at Roberts Swiss.

6.2 Non-Conforming Material Return

The supplier is expected to undertake all necessary steps to ensure that the nonconforming product is contained immediately and that Roberts Swiss receives correct replacement of rejected materials to fulfill the purchase order requirements.

6.3 Corrective/Preventive Action (C/PAR)

Roberts Swiss may issue a C/PAR for the following reasons, but not limited to:

1. Product reject discovered at Roberts Swiss or at Roberts Swiss' customer
2. Repeated late delivery.
3. Repeated over/under shipments.
4. Incorrect items sent.
5. Inadequate or incorrect containers/packaging received without authorization from Roberts Swiss.
6. Lack of shipping and/or certification paperwork.
7. Lack of timely response to corrective actions.

When Roberts Swiss issues a C/PAR to the supplier, the supplier is responsible to identify the root cause(s) of the problem, implement corrective action on non-conforming material in order to prevent

recurrence of the problem, and implement preventive actions on the system so that the problem does not occur again with the next product, within the allotted time.

A copy of the C/PAR will be sent to the supplier and the supplier must complete and return it within the identified number of days recorded on the C/PAR. The supplier may request an extension if there is good reason for the request.

The supplier will be notified if any aspect of the C/PAR is not acceptable.

Rev. Rev.	Rev. Date	Change	Proc. Owner Approval	Mgmt. Rep Approval
A	2/26/14	Major process change to simplify document control process	L. Rutan J. Makris Jr.	F. Ortiz