

1. Scope

This procedure describes the minimum quality system requirements for suppliers.

2. Purpose

The purpose of this procedure is to provide for a uniform procedure and to define responsibilities associated with the process. This document shall be provided to suppliers.

3. Responsibility

Overall responsibility: All suppliers.

All suppliers will be audited for implementation of these requirements as per the audit plan. – Responsibility: Head Quality, SASMOS

4. Applicable Documents

Supplier assessment rating procedure:

5. Applicable Forms

Supplier Assessment form:

Supplier performance rating form:

Supplier Registration form:

6. Procedure

SASMOS has two levels for Quality Systems requirements for suppliers. Level 1 is “Probation” level and covers minimum basic requirements for quality system which affect the product directly and without which the product cannot be accepted. However no supplier can remain at this level for more than one year, all supplier shall mandatorily go for Level 2, which is “approved” level, after completion of one year at level 1.

Level 2 is the preferred Quality System requirement for suppliers and SASMOS encourages suppliers to choose level 2 the first time.

15.09.08	A	Initial release	Vishy	Param	HGC
Date	Revision	Reason for change	Prepared by	Reviewed by	Approved by

Level 1 Quality System Requirements:

A: Product suppliers / Manufacturers

1. Receiving Inspection

- a. Verify with respect to requirements in Purchase Order
- b. Test report / CoC is required
- c. Chemical composition of material to be checked, if manufacturer's report is not available. (Manufacturer's report must be traceable to physical identification on the material.) Third party labs used for checking the raw material must be NABL approved.
- d. Dimensional inspection if any (if they get partial manufactured parts from their suppliers) must record the reading using check list.
- e. Appropriate sampling used if necessary (which must be accordance with IS/Mil standards) we prefer to have IS2500 with general Level2 with AQL 2.5% for non critical dim & AQL 0.1% for the critical parts.

2. Storage and Identification

- a. All material / components must have identification at all times, starting from receiving till it is shipped and delivered to customer.
- b. Whenever material is cut from stock it shall be ensured that material is not cut from the identified end.
- c. Route card/ Job card must carry the batch number of the material used.

Route cards: must contain the details of machine used, Equipment used for measurement, operator details (who has done the operations & inspection) & Traceability of the material used i.e. heat number/ lot number / Serial number

3. Traceability

- a. All material must have end to end forward and backward traceability.
- b. Forward traceability:
The supplier must be able to establish beyond doubt that whatever material received at the supplier's stores was used in which all products and ultimately shipped to which all customers.
- c. Backward traceability:
Once the product is made and delivered to customer, on request, the supplier must be able to establish which all material and processes were used in that particular batch/ serial number of the product.
- d. Serial number/ Batch number

In order to maintain traceability it is mandatory that all product supplied to SASMOS are either serial numbered or at least batch numbered.

A batch is the lot of production which is processed at the same time under the same operating conditions.

4. Product Realisation

a. Review of requirements

Supplier shall put a process in place and fix responsibility to review the SASMOS requirements as mentioned in Purchase Order and other quality requirements. All requirements and all associated specifications must be thoroughly studied. These requirements then shall become part of the Process plan and Quality Plan of the supplier.

b. Process Plan and Control Plan

Control plan and process plan shall be made in such a way that no requirement of SASMOS is person/ memory dependent.

Supplier shall submit Control plan to SASMOS for approval.

Control Plan: A control is a document which lists all the processes step by step and identifies its specification / acceptance criteria, the reference method to be used and its associated spec. reference, it also lists with what tool this will be performed and with what measuring/ test equipments the output of the process will be checked including the frequency of check and samples size, if applicable. It further lists, in case the result is not found within the specs., what action shall be taken.

Process Plan: It is a document cum record. The process plan lists the process, step by step, and has provision for sign off by Operator and QC inspector. It lists in-process inspection at appropriate place.

c. In-process inspection

Supplier shall plan in-process inspection considering 1. All the processes, output of which cannot be inspected at subsequent stages and 2. To make sure that non-conformances are identified at critical phases of operation so that effect of non-conformance does not affect delivery schedule and cost of the project.

In-process inspection steps shall be part of process plan and control plan.

SASMOS reserves the right to include mandatory inspection points at appropriate stages, which will require supplier to inform SASMOS in advance of the impending inspection point/s and hold the process for inspection, unless otherwise waived by SASMOS in writing.

d. Final Inspection and release

Final inspection shall be done as per pre-defined check list. This check list shall not only contain the drawing dimension requirements but shall also contain requirements in “notes” given in the drawings, surface roughness requirements mentioned on the drawing and the material. It shall also cover requirements given in the associated specs. and workmanship standards. It shall also contain any specific requirements such as packing spec, and also labelling and shipping requirements.

A competent person, independent of mfg. team of the supplier shall review the final product and its associated documents and ensure that all requirements have been complied with before releasing the product for shipment. Release of product must be signed off.

e. Calibration

i. **Master list:** Supplier shall establish and maintain a master list of instruments which need to be calibrated. The master list shall contain the following information as a minimum:

1. Unique sl. No. of the instrument
2. Description of the instrument
3. Make of the instrument
4. Location of the instrument
5. Least count and accuracy of the instrument
6. Name of the calibrating agency
7. Frequency of calibration
8. Date of Calibration
9. Due date of next calibration

ii. Frequency of Calibration

Supplier shall assign frequency of calibration for each instrument. The calibration frequency shall be based on the frequency of use, environment in which it is used and handling conditions of the instrument.

iii. Assign Responsibility

Supplier shall assign a person who is responsible for calibration activities, this person shall also be responsible for making sure that concerned persons are informed in advance of the due date of calibration and makes sure that instruments are sent for calibration in time.

iv. Out of calibration condition

If during calibration or during any other activities it is found that a particular instrument is out of calibration, then following must be done:

1. Quarantine the instrument.
2. Analyse whether products already supplied to customer can be out of tolerance.
3. If the above is yes – then trace all the products which were inspected/ produced using this instrument and send a re-call/ alert note to the customer.
4. Mutually agree with customer to provide replacement/ rework.

f. Selection of IMTE

Supplier shall use an instrument for measurement / test which is in general 10 times better accurate than the tolerance requirement. Supplier shall not use any instrument which is less than five times better than tolerance requirements, unless otherwise approved by SASMOS in writing.

g. Non-Conforming article Control

Non-conformance: A condition where in the observed values are not as per specification/ requirements.

Once a non-conforming product is found at any stage of manufacturing, the article shall be identified suitable and placed in a quarantine area until the disposition is taken.

Authorised persons shall decide on the disposition of the product, suppliers are permitted to take the following decision:

- i. Rework to specification using standard rework method. (A standard rework method uses the processes as used in normal production of the item.)
- ii. Scrap

Suppliers, who are not design responsible, are not permitted to take – “Use As Is” decision, they shall contact SASMOS for further instructions.

h. Corrective Action

Supplier shall establish and maintain a system of performing root-cause analysis and taking appropriate corrective actions to eliminate the root cause.

Records of root cause analysis and corrective action must be kept.

i. Customer Complaint handling

SASMOS will formally inform the suppliers of any non-conforming condition detected at SASMOS or at its customers.

Any customer complaint shall be dealt with utmost urgency and preliminary response shall be provided within 24 hrs of receipt of the complaint. A formal response identifying the root cause and corrective action plan shall be provided within 10 days of receipt of the complaint. If it is not possible to respond within this time, the supplier shall request SASMOS for extension of the date of formal response with justification.

Verbal response is not acceptable.

j. Record Retention

Supplier shall retain all quality records for a period mutually agreed between SASMOS and supplier. The method of storage shall be appropriate and suitable with the storage period. The storage shall provide for easy and fast retrieval of the records.

The following are part of quality records:

- i. Purchase Order
- ii. Incoming inspection records
- iii. Material test certificates
- iv. In-process and Final inspection records
- v. Process records / Assembly records
- vi. Inspection records
- vii. CoC and test reports of Raw material / Components
- viii. Deviation records
- ix. Traceability records

K. Preventive maintenance of Machine.

Supplier shall maintain a master list of machines with proper identification on the machines, each machine should have preventive maintenance plan covering Daily/weekly/Monthly maintenance requirements.

L.Customer Property

Supplier shall maintain a list for the items provided by Sasmos example machine, Equipment, material & Drawings, if any damages or loss of these items must be informed to sasmos, if any changes in the drawing rev, supplier should return back the old rev drawings & there master must be updated accordingly.

Level 2 Quality System Requirements:

A: Product suppliers / Manufacturers

Product supplier must be certified to ISO9000/ AS9100,

7. Responsibility of Quality

Any inspection by SASMOS or its customers or its appointed inspection agency does not absolve the supplier of responsibility of quality. Supplier shall take complete responsibility of any quality issue aroused later.

8. Supplier Performance Rating

SASMOS has a system of rating performance of suppliers regularly. The following parameters are considered while arriving at performance rating

- a. Quality of products supplied
- b. On time delivery
- c. On time response to complaints and
- d. SASMOS receiving customer complaints due to suppliers' products

The supplier rating will be computed once in three months and shall be provided to suppliers. Suppliers with poor performance shall take corrective actions and provide written response to SASMOS.

9. Right of Access

Supplier shall provide access to its premises where work related SASMOS products are performed, to SASMOS and its customers and third party inspection/ audit agencies with minimum of one days' notice.

10. Right to conduct audit

Supplier shall permit audit by SASMOS or its customers or their appointed third party. SASMOS undertakes to inform in advance of any such audits and conduct audit on mutually agreed date and time.