

# QUALITY ASSURANCE GUIDELINE FOR SUPPLIES TO THE STABILUS GROUP

The supplier must execute his quality assurance measures in such a way that his products are faultless and correspond to the specifications determined by STABILUS and so that each product is made available

- in the agreed upon quantity
- for the agreed upon time
- at the agreed upon location
- in the agreed upon quality
- in the agreed upon packaging.

This requires a zero-defect objective together with a continuous improvement of the performance.

## 2. PURPOSE

The supplier is fully responsible for the quality of his products. He must execute his quality assurance measures in such a way that each product corresponds to the specifications stipulated by STABILUS and that it is faultless in every respect.

The supplier is obliged to supply faultless products.

Therefore, he must be committed to the zero-defect objective

This requires an up-to-date and effective quality management system with a process approach.

Proof must be established by means of an independent certification according to ISO 9001:2000. It is necessary to develop the QM-System further in accordance with ISO/TS 16949:2002.

The quality assurance guideline applies for each supply to STABILUS; it is a supplement to the purchasing conditions.

## 3. SCOPE OF APPLICATION

This guideline applies to all suppliers, who supply manufacturing material or provide services for series products to companies of the STABILUS Group.

Presently valid written agreements will thereby not become void and thus will remain valid.

Special instructions (e.g. designs, specifications, technical terms of delivery, conditions of acceptance, quality agreements, purchase agreements) must be observed additionally.

## 4. RELATIONSHIP STABILUS TO SUPPLIER

The STABILUS quality assurance for supply material regards it as its task to process experiences and quality data in such a way that a positive development between STABILUS and its supplier can be achieved through purposeful quality-assured planning and measures.

A close co-operation is therefore essential for achieving the agreed upon quality at acceptable costs.

The supplier ensures to be completely independent and to participate actively in all project phases with the aim to fulfil all the requirements for the project including all legal demands and to achieve the quality goals. The supplier is obliged to contribute actively to the selection and definition of the special, if necessary, safety-relevant characteristics.

## 5. DEMANDS ON THE QUALITY ASSURANCE SYSTEM

The supplier must be certified by an accredited certification body according to ISO 9001:2000, at least all the relevant sectors of his company that supply to STABILUS.

The supplier should have the goal to develop his QM-System further in accordance with ISO/TS 16949:2002.

## 6. EVALUATION OF THE QUALITY CAPABILITY

The implementation of the quality targets of an industrial company is influenced decisively by the quality capability of his suppliers.

For this reason, it is an absolute necessity to evaluate the quality capability of a supplier.

All suppliers with more than five deliveries quarterly receive written information about their classification. This is based on the delivery quality according.

Selected strategical suppliers receive an evaluation composed of three elements:

→ Delivery Quality	50 %
→ Operational Quality	20 %
→ QM-System	30 %

In case an error of the supplier results in a customer complaint or a serious quality problem, a special status „Containment Level“ is given. This results in a downgrading when evaluating the quality ability.

The resulting classifications „A“, „B“ or „C“ mean:

### I. Classification „A“

An „A supplier“ fulfils the essential conditions for a long-term co-operation with STABILUS and is willing to contribute to the continuous development in the sense of the „Zero-Error-Target“.

### II. Classification „B“

A „B supplier“ is still a suitable supplier, however, his quality assurance system shows weaknesses. Therefore, improvements are urgently required.

The supplier expresses his willingness to achieve the quality status „A“ by co-operating with STABILUS.

For classification „B“ the supplier is requested, within four weeks, to inform in writing the quality assurance for suppliers about the measures he is undertaking as well as the date by which he will have achieved the quality status „A“.

### III. Classification „C“

A „C supplier“ is a not acceptable supplier, who has substantial weak points in the quality assurance system.

The STABILUS purchasing department is requested to look for alternative suppliers. It is the aim to replace this particular supplier by a more qualified supplier.

## 7. QUALITY BASES

### 7.1 Order documents

The products, which are supplied by the supplier, must correspond particularly to

- the current STABILUS designs
- the STABILUS purchasing conditions
- the STABILUS test regulations ( in special cases)
- the STABILUS conditions of acceptance (in special cases depending upon product group)
- the valid laws, standards and regulations
- the other agreed upon regulations and requirements
- the presented first samples.

All verbal arrangements are considered invalid.

**STABILUS ASSUMES THAT WITH THE ORDER ACCEPTANCE, THE REQUIREMENTS RESULTING FROM THESE DOCUMENTS ARE ALL ACCEPTED!**

All of the technical information provided by STABILUS is subject to the updating service.

Changes are noted on the designs and sent to the supplier by the purchasing department.

### 7.2 Additional order details

#### Packaging regulations

The design of the STABILUS supply packaging must comply with STABILUS standard STAB-Spec. 10009425.

## 8. PREVENTIVE QUALITY ASSURANCE

Preventive quality assurance requires an effective PROJECT PLANNING.

Preventive quality assurance must begin at the earliest possible time, so that counteractive measures can be taken in due time in order to solve recognized problems.

During project planning and execution, the general writings of the valid quality management standards must be considered. These writings contain in particular the following standards and technical specifications (current editions), which must be observed

- Technical specification ISO/TS 16949:2002
- Quality safety before series use, VDA 4, Part 1 and 2
- Quality safety before delivery, VDA 2
- Production part enabling procedure (PPAP)
- Product quality preplanning (APQP)

In all the phases of the quality planning, STABILUS reserves the right to have access to the documents.

## 9. INITIAL SAMPLES

### 9.1 Principle

Initial samples are products, which were manufactured entirely with standard operating materials and under standard conditions.

The initial sampling and possible later samplings, which are carried out by the supplier, must correspond to the PPAP requirements. An initial sampling according to VDA volume 2 with documentation and recordings following PPAP is permissible.

The supplier is obliged to create documentation and/or submit the documentation to STABILUS according to the STABILUS „Checklist for initial samples“.

Certain parts show characteristics, which are only recognizable by means of a subjective test. For this reason, the supplier keeps five parts including their sample test report for at least five years after initial sample release as reference samples.

The content materials of the product must be transferred in the context of the initial sampling under use of the IMDS (International Material Data System).

### 9.2 Deviations

Requests of the supplier regarding deviations from designs or specifications must be submitted in writing to the purchase department of STABILUS before sampling.

All deviations must be indicated and specifically marked in the respective initial sample inspection report (deviation permission, date).

### 9.3 Capability proof for initial samples

The capability indices for the especially marked characteristics in the design documents have to be calculated and entered into the initial sample inspection report. In case of missing processing capability, testing up to 100 % is required!

\*The following applies for process engineering products:

Test of one or several samples from a „continuous process“, whereby the samples must be representative for the entire production quantity.

The capability proof for the stipulated characteristics is a prerequisite for the first sample release. For this the minimum agreed upon requirement is:

$$cmk \geq 1,67$$

$$cpk \geq 1,33$$

In special cases, higher capability characteristic values can be agreed upon.

### 9.4 Marking and packaging of initial samples

Each initial sample supply must be packed separately to the series goods (if possible depending on the ordered number of items, in the STABILUS containers required according to packaging regulation) and must be clearly marked with „INITIAL SAMPLE/NO SERIES RELEASE“ on the container.

\*Process engineering products are e.g. dimensionless parts, liquids, gas (chemicals, lacquers, lubricants)

## 10. QUALITY ASSURANCE DURING MANUFACTURING

The supplier has to create realistic and controlled conditions using statistic methods with the aim to achieve the demanded quality and to obtain constant improvements.

In order to guarantee that the products, which should be supplied, fulfil the agreed upon quality requirements, the supplier has to execute suitable quality protection measures.

The measures must be documented in the production control plan.

The test scope must be determined by the supplier, based on the FMEA, according to the degree of the achieved processing capability, the meaning of the respective characteristics and the possible consequences of the fault.

Continuous recordings concerning the carried out tests as well as their results must be kept. STABILUS reserves the right to have access to the QM documents at any time.

## 11. PURCHASE INSPECTION AT STABILUS

STABILUS decides about contents and scope of purchase inspections in the context of the quality preplanning.

Execution takes place according to individually specified inspection plans.

The supplier renounces his right to object to the late notice of defect.

## 12. DEALING WITH COMPLAINTS

In case of complaints, the supplier receives a complaint announcement with sample parts.

Depending on the kind of complaint, STABILUS quality assurance first informs the supplier.

After the first notice concerning a complaint has been received, the supplier has to contact STABILUS logistics immediately in order to arrange spare parts supply.

The supplier has to analyze complaints at his expense. The supplier is charged with all costs resulting for STABILUS.

The supplier makes notes about all the activities, finds solutions, arranges suitable measures and reports to STABILUS in the form of an 8D-Report.

Proofs regarding suitable measures can be requested from STABILUS and must be submitted within a fixed period (e.g. x/R map, cpk indices, work instructions, changes in the production control plan, project plans, etc.).

## 13. DEVIATION PERMISSIONS

The delivery of products with specification deviations may take place only after previous written permission from the STABILUS quality assurance for suppliers.

The supplies may only be delivered in the agreed upon quantity or for an agreed upon period of time.

Each supply of products with specification deviations must be provided with a specially agreed upon marking.

## 14. DOCUMENTATION OBLIGATIONS

Quality recordings serve as a proof that the quality requirements were fulfilled and that the quality assurance system functions effectively.

Quality recordings must be carried out by the supplier in such a way that they are assessable and enable an assignment without doubt for the appropriate product, production place and date.

A batch specific system of traceability, based on the supplier batch markings, must be conducted by the supplier.

Quality recordings have to be kept safe and easy to find. These must be made available to STABILUS on request.

The procedure for storage and archiving must be carried out in accordance with VDA 1.

In addition, the procedure for parts that require documentation or characteristics, which are marked as such, must also be carried out in accordance with VDA 1.

## 15. PERIODIC PROOF/CERTIFICATIONS OF SERIES SUPPLIES

### 15.1 Certificate about tests of materials

In the case of supplies to STABILUS, all suppliers have to provide test certificates according to EN 10294, as a confirmation of the supplied material, work pieces and parts.

Frequency, type and scope of the inspection certificate depend on the respective product groups and are recorded in the STABILUS standard STAB-Spec. 10005434.

On request, STABILUS must receive in addition examination and test results for each lot of the finished material from each supplier. It must be assured that the test results can be assigned to the respective lot.

### 15.2 Periodic examinations, qualification test

All products must be submitted to a qualification test at least every 12 months. During this test, all the measurements and functions, which are stipulated for the product, must be examined.

On request, the results must be submitted to STABILUS for evaluation

## 16. ENVIRONMENTAL PROTECTION

Demand of a validation according to EMAS or a certification according to DIN EN ISO 14001

The products and materials used by the supplier must fulfil the respective valid official regulations and must in particular comply with all the nationally and internationally valid technical standards, e.g. SAE, ASTM, DIN, ISO, MSDS, VDA.