STARKOM
a Mercedes-Benz Group AG Company

QUALITY ASSURANCE REQUIREMENTS

(QSV)

Revision D

INDEX

Introductory provisions

Economical and efficient production of products and the conducting of services in all areas of the business process represent an adequate quality level of business.

The quality of a partnership depends on the quality of individual business services (meeting with due dates and technical specifications, responsibility for costs, competitiveness, overall reliability, etc.). The foundation of business success is a high quality partnership.

Purpose

Quality assurance requirements (hereinafter referred to as *QSV*) describe the requirements of STARKOM (hereinafter referred to as *contracting subscriber*) in the field of products and service quality. In order to meet these requirements reliable and competent suppliers and service providers (hereinafter referred to as *suppliers*), which are devoted to common goals and the conformity with quality requirements of the end customer, are required.

Validity

QSV applies to all suppliers together with all other contracts and conditions provided by OEMs and concluded between the contracting subscriber and the supplier, insofar as they are not in conflict with other provisions (e.g. MBST, supply contract, etc.). Together with these requirements, the supplier must also comply with the prescribed legislation. The quality and/or terms of supply defined by the supplier are disregarded for the contracting subscriber. QSV is a part of the supply arrangements and is binding for the supplier and the contracting subscriber.

1. General provisions

QSV regulates the quality assurance requirements and procedures, but does not relieve the supplier regarding the quality of the product and/or service that it must fulfill in accordance with other agreements, legislation and binding conditions. Requirements, which the contracting subscriber communicates together with the customer's requirements to the suppliers, must be forwarded by the suppliers to their (sub) suppliers. Everybody in the supply chain shall use appropriate quality management systems, since that is the only way to ensure the quality of the end product or services.

1.1 Goal of quality assurance

1.1.1 Customer satisfaction is the highest goal of all activities in the field of quality assurance. Therefore, all products and services of the supplier must comply with the agreed and legally defined requirements. The supplier must ensure conformity with the requirements by using a modern and efficient system for managing of support processes. The focus must be on risk evaluation and preventive methods.

1.2 Commitment to quality

1.2.1 In relation to the contracting subscriber and the end users, the supplier is obliged to provide the legally defined and agreed quality of its products and services.

1.2.2 The supplier is obliged to check the product or services specifications and evaluate the risks and possibilities of implementation within quality and due date criteria.

1.2.3 The supplier undertakes to warn of possible uncertainties and/or deficiencies based on contracting subscriber's risk evaluation. If the technical documentation specifies the manner of performance or if the contracting subscriber prescribes a procedure, which can be replaced by a more suitable, more economical, environmentally friendly and/or more effective procedure, the supplier can present alternative proposals to the contracting subscriber.

1.3 Environment

1.3.1 The statutory conditions and limit values are the minimum requirements for all procedures in the production chain and for all services. ISO 14001 certification is recommended. The supplier must comply with any changes to legal provisions without a special warning from the contracting subscriber. The contracting subscriber shall have access to all research findings.

1.3.2 In the case of supply of dangerous substances, a safety data sheet must be added to each delivery and the transport shall be carried out in accordance with relevant legal regulations.

1.3.3 The process of manufacturing products as well as the used goods must meet the latest requirements regarding environmental protection. When supplying goods that under special conditions release hazardous substances or can be removed only under difficult/special conditions (waste), written instructions on handling and appropriate supporting documentation shall be enclosed.

1.3.4 The supplier is obliged to meet the requirements of the EU regulation regarding the REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals). The transfer of data regarding the content of dangerous substances from the so-called “list of candidates” shall be evident from the IMDS report, which is a mandatory attachment at sampling, unless otherwise required.

2. Quality management system

According to section 1.2 the supplier is completely responsible for his products or services performed. In order to fulfill its responsibilities, the supplier undertakes to develop a quality management system (QM system), maintain it and constantly upgrade it.

2.1 QM system conditions

2.1.1 The minimum requirement is the use of a QM system in accordance with ISO 9001 or an equivalent QM system standard that meets the requirements of the ISO 9001 standard.

2.1.2 As evidence of a functioning QM system, the following must be submitted:

- valid certificate according to ISO 9001, issued by an authorized body
- reports on a positive conclusion of audits in accordance with ISO 9001 or an equivalent QM system standard by an authorized body (the verification shall not be older than 2 years)

2.1.3 For all products of automotive industry covered by the scope of the IATF 16949 standard and other equivalent standards the minimum requirement regarding the QM system is applied:

- certificate according to IATF 16949 issued by an authorized body or
- valid certificate according to ISO 9001, issued by an authorized body and with the goal of obtaining IATF 16949 certification within two years of signing the contract

2.1.4 Special procedures – additional requirements:

- for welded elements requirements of DIN EN ISO 3834-2 are applied
- for non-civil engineering products requirements of DIN EN ISO 2303 standard shall be met
- for accredited laboratories requirements of ISO/IEC 17025 are applied

2.1.5 Products with additional requirements are specified in the documentation of the contracting subscriber (order/technical specifications, construction drawings, etc.).

2.1.6 All valid certificates must be stated on the offer and submitted at the latest at the conclusion of the supply contract.

2.2 Audit

2.2.1 The contracting subscriber reserves the right for an audit at the supplier. The audit may be carried out as an audit of the process and/or the product. The two involved parties shall agree on the audit type. Restrictions from the contracting subscriber regarding the protection of business secrets shall be observed or accepted (recipes, calculations, etc.). Under an agreement with the contracting subscriber an evaluation by third parties is allowed, in particular by independent and expert controllers (for example contracting subscriber's customers, accredited certification companies, etc.).

2.2.2 In the event of identified nonconformity the supplier undertakes to prepare, present and implement corrective measures with the aim of removing nonconformity within the required time limit.

2.3 Suppliers evaluation system

2.3.1 The suppliers' evaluation is carried out on a yearly basis or as necessary. The evaluation covers the following areas:

- quality, including customer's and field complaints
- PPM
- reliability of supplies
- sampling status, requalification

- change management
- ISO and other certifications and permissions for implementation

2.3.2 The exception are suppliers that provide services or servicing of tools and devices where the evaluation criteria are adapted to the type of service.

2.3.3 Suppliers evaluations are classified into 3 classes: A, B and C. In the event that the supplier is evaluated with B or C he is obliged to present and introduce measures to eliminate or reduce the nonconformity within the given time limit. Supplier from the class C does not provide proper quality for new orders/projects.

3. Preliminary quality planning

The supplier shall take into account the principle of preventing nonconformity. Therefore, a systematic preliminary planning of quality and risk evaluation is necessary.

3.1 Capability of implementation - verification of requirements

3.1.1 The supplier must verify every order and evaluate the risk of producing the product or executing the services in accordance with technical and commercial requirements, which include:

- resources (personnel, space, quantities, infrastructure, etc.)
- due dates
- prices
- list of activities
- construction drawings, technical specifications
- evaluation of the capability of the production process - see section 3.5
- release of the product and/or of the process, service - see section 3.6

3.1.2 The capability to manufacture and the risk must be checked for all new and changed products, projects and technologies. All risks and/or ambiguities must be promptly communicated to the contracting subscriber and possible alternatives shall be suggested, if possible.

A contractually accepted business is deemed to be a confirmation of a risk-free production for the contracting subscriber.

3.2 Project plan - plan of implementation stages

3.2.1 The supplier prepares a project plan or a plan of individual project stages for the purpose of planning and implementing the project. Under the agreement with the contracting subscriber it is a mandatory and integral part of each supply contract.

3.2.2 The minimum stages for the implementation of the project plan are as follows:

- preparation of the FMEA construction analysis (D-FMEA) - in the case of product development by the supplier
- preparation of the FMEA analysis (P-FMEA) in the field of processes for pre-serial and serial-production

- preparation of a control plan for managing the pre-serial and serial-production
- planning and providing of resources for verification
- production of sample parts not manufactured with serial tools (if necessary)
- production of first sample parts manufactured with serial tools (including documentation with actual values of the product's characteristics)
- evaluation of the capabilities of new technologies, complexity, usability, environmental impacts, packaging, maintenance, requirements or views on production that could pose a risk for the project
- approval of the sample by the contracting subscriber (in case of own development by the supplier)
- implementation of sampling (including the first control report according to VDA 2 - PPF/PPAP)
- start of production (SOP)

The project plan contains the start and end dates, resources and monitoring of the actual realization of the plan.

3.3 Control plan and planning of measuring tools and devices

3.3.1 Systematic planning of the verification and of measuring tools and devices ensures that in the case of new and/or modified products, manufacturing processes, etc., the following items are included:

- risk evaluation is prepared
- all characteristics, important for quality assurance are covered
- procedures used and the frequency of verification are included
- measuring tools and devices are properly set up and calibrated in a certified laboratory and available before the beginning of the pre-series

3.3.2 The following documents include the characteristics, which are important for the quality: construction drawing, list of work operations, control plan and other technical specifications. Determination of important product/process characteristics that need to be checked when planning of control and measuring tools and devices is carried out, is prepared taking into account the findings from the D/P-FMEA analysis (analysis of possible defects and their effect) and experiences from similar products/processes, and in cooperation with the contracting subscriber.

3.3.3 Verification plan - the control plan contains at least the following information:

- basic information (manufacturer, document label, article number or construction drawing number, data about technical changes, user, date, etc.)
- control characteristics, including tolerances
- measuring tools and devices
- frequency and scope of verification for samples, pre-series and series
- method and frequency of verification
- responsible person for carrying out the prescribed verification
- measures for the elimination of possible nonconformities
- responsible person for the implementation of measures in case of identified nonconformities
- record where the results of the control are documented

3.3.4 The required measuring tools and devices shall be manufactured or provided by the supplier at their own risk, taking into account economic and production-technical aspects and in accordance with the requirements of the VDA or AIAG, MSA, unless otherwise specified.

3.3.5 Important product characteristics or production process parameters can affect safety - DS mark or conformity with the legislation - DZ mark, suitability, function, operation or further processing of products, and therefore need to be monitored.

3.3.6 The supplier is obliged to prepare a **FMEA** analysis as a risk evaluation for the product and/or process. The analysis must include all previous warranty services, reclamations/complaints and activities on similar projects/products/services. A risk evaluation shall be prepared for important characteristics. Nonconformities and causes for nonconformities shall be described in such a way that their elimination and/or 100% control are possible.

3.4 Quality records/quality certificates/delivery note number (DN-No.)

3.4.1 The supplier shall document the verifications that were carried out. Documenting and archiving quality control records are mandatory when checking important characteristics (see section 3.3.5). In the event of identifying important characteristics, evidence of suitability/capability shall be attached to the delivery documentation, unless otherwise specified.

3.4.2 The supplier and its sub-suppliers shall keep records on quality for 35 years after the completion of the production, and additionally for the period of time determined for the guarantee of spare parts. In the case of all other quality records for which the storage period is determined by the supplier at their own responsibility, the minimum legal requirements for storage shall be considered. Quality records must be available to the contracting subscriber or its customer at any time upon request.

3.4.3 At the request of the contracting subscriber or upon delivery, the supplier shall provide evidence of verification (e.g. a certificate in accordance with EN 10204) and forward or attach it to the delivery documentation. The request for verification certificates is evident from the relevant delivery note number (for example from the construction drawing) and from the relevant text in the order.

3.4.4 Requirements regarding verification certificates for individual parts/semi-products acquired by the supplier himself are evident from the bill of material (see delivery note number). The supplier is obliged to save all certificates for the goods he has purchased himself. In the case of direct supplies to the contracting subscriber's customer on behalf of the contracting subscriber, the evidence of verification must be submitted to the contracting subscriber together with other shipping documentation.

3.5 Evidence of the capability of the production process (pre-series and series)

3.5.1 In order to quickly obtain information about the capability of the (pre)serial-production process, it is necessary to conduct analyses in order to determine the capability of the production process already in the production preparation stages. With the use of mathematical and statistical methods for evaluating the capability of the production process,

it is necessary to assess the compliance of the process with the requirements of the contracting subscriber (for example: conformity with the construction drawing, process parameters, product testing, etc.). These evaluations provide guidelines for further optimization with the aim of achieving requirements before the beginning of the serial-production.

3.5.2 The choice and determination of the characteristics for which it is necessary to provide evidence of the capability for production process shall be carried out in the early stages of negotiations with the supplier. All relevant characteristics must be included (DS, DZ):

- short-term capability of the production process: Cmk ≥ 2.0
- long-term capability of the production process: Cpk ≥ 1.67

3.6 Release of the product/process

3.6.1 The purpose of the release is to provide evidence that prior to the beginning of the serial-production the agreed requirements in the construction drawings and specifications regarding due dates and quality will be adequately realized. The purpose of the release is to eliminate systemic nonconformities prior to the beginning of the serial-production.

3.6.2 The release of the product/process is carried out in accordance with the procedure described in VDA 2 (ensuring the quality of deliveries; EMPB/PPAP). The standard release scope is VDA 2, level 2, unless otherwise agreed. It allows the supplier to start the serial-production in a manageable way and prevents potential risks and ensures long-term quality assurance of the product/process in accordance with the requirements of the contracting subscriber and/or customer.

3.6.3 The purpose of the release for the contracting subscriber is to verify whether the supplier:

- understands all given requirements
- has all necessary documentation and resources
- has a sufficiently capable process
- monitors and documents the agreed characteristics
- first pieces produced under serial-production conditions actually meet the requirements

3.6.4 Release with sampling pieces is free of charge for the contracting subscriber. The documentation for the sampling of the product must be completed according to the latest valid version of VDA 2 or PPAP. The required bases and the sampling level are predefined in the protocol for planning and adjustment of sampling.

3.6.5 The release procedure must be carried out in the following cases:

- new supplier and/or product
- product requalification (1x per year for relevant characteristics (DS), 1x per 2 years for other parameters), unless otherwise required
- change of product, construction, technical specifications, goods
- change of production location
- change in the production process, which has an impact on the characteristics of the product
- longer production interruption (more than 12 months; spare parts are excluded)

3.6.6 And if appropriate in the following cases or to a limited extent:

- introduction of new, modified or replacement tools
- after processing or after maintenance of tools
- change of the sub-supplier of products or services
- change of products with the sub-supplier

3.6.7 In case of any changes, the supplier is obliged to inform the contracting subscriber about the changes and agree on a further release procedure.

3.6.8 The supplier is obliged to carry out regular inspections according to the requirements of the contracting subscriber, document and archive them, and periodically issue a requalification report to the contracting subscriber (e.g. dimension control, material composition, process capability, weld joints control, legal and environmental requirements and the check of other characteristics specified in the control plan).

3.6.9 In the event that on the basis of insufficient evidence the product/process does not meet the requirements, the supplier is obliged to propose improvement measures and introduce them within the required time limit specified in section 5. Until the implementation of measures, the supplier is obliged to obtain a temporary approval for deviations from the contracting subscriber or end customer. After the implementation of measures, the supplier is obliged to carry out a re-sampling according to VDA 2 to the agreed extent.

3.7. Storage, packaging and marking (traceability)

3.7.1 Storage of goods with the supplier must be organized in such a way that it is adequately protected against loss, theft, damage, and that changes in the characteristics of goods due to environmental impacts are excluded. The supplier must provide suitable packaging, unless otherwise agreed. The appropriate packaging must prevent damage to the goods during storage and transportation.

3.7.2 The supplier must mark the goods in such a way that, at each stage from overtake of goods, the condition of the product and the verification procedure can be clearly identified. When submitting the marking of goods determined by the contracting subscriber shall be taken into account, unless otherwise agreed.

3.7.3 For products for which appropriate documentation shall be kept it is necessary to ensure the traceability of the shipment even after the conclusion of serial supplies (e.g. important characteristics) - see section 3.4.

3.8 Concept for providing quantity

3.8.1 In the event of damage to the tools and/or interruptions on the machinery, the supplier is obliged to provide the contracting subscriber with products or services with the help of appropriate measures. The supplier provides preventive investment maintenance and servicing to prevent interruptions in the production process or service provision.

3.8.2 Planned actions in emergency situations: For the event of an emergency the supplier must draw up a plan for emergency response in order to meet the requirements of the

contracting subscriber without interruptions (for example, interruptions in energy supply, labor shortages, shortage of key working assets, loss of information, on-line attacks on the IT system and other interferences in processes inside and outside the company). If due to extraordinary disturbances at the supplier the supplying of the contracting subscriber is threatened, the supplier is obliged to immediately inform the contracting subscriber.

3.9 Change of products/processes

3.9.1 In the event of changes in requirements, the contracting subscriber shall inform the supplier in writing in a timely manner. The supplier is obliged to check the feasibility of the change, assess the risks, and to make a bid with all the demanded elements, including the stock status and the costs due to the change.

3.9.2 The supplier is obliged to inform the contracting subscriber about any changes that may affect the quality of the product/process/service (e.g.: change of raw materials, production processes and stages within a particular process, verification procedures, changes in delivered parts, location of production, changes of sub-suppliers, changes in the quality assurance process, etc.).

3.9.3 The information on the change from the previous section must be given in due time with appropriate evidence so that the contracting subscriber can check and evaluate the intended change. If the contracting subscriber expects negative consequences due to the proposed changes and therefore objects, the supplier shall not introduce changes. Due to the changes mentioned above, it is necessary to re-release the product/process/service (in accordance with section 3.6).

3.9.4 The concealment of introduced changes by the supplier and/or the release by the contracting subscriber does not relieve supplier of his full responsibility for ensuring conformity with the contracting subscriber's requirements.

4. Serial control

The supplier provides systematic production monitoring with appropriate batch verification procedures in accordance with his control plan.

4.1 Overtake of goods

4.1.1 The quality of delivered products/provided services is ensured by appropriate procedures that include the required control of goods at theirs overtake, including the documentation with the verification results. The supplier must provide professional literature and knowledge to ensure the traceability of shipments sent to the sub-supplier.

4.2 Production

4.2.1 The supplier ensures a smooth production process and the appropriate quality of products/services with planned monitoring and recording of process parameters and production characteristics. For important product/process characteristics, the supplier is

obliged to plan appropriate checks and keep control records, which must be archived in accordance with the customer's requirements. At the request of the contracting subscriber it is necessary to communicate appropriate information on the provision of capability to meet the contracting subscriber's and/or customer's requirements.

4.3 Insufficient/inappropriate parts

4.3.1 Insufficient/unsuitable parts in the supplier's production shall be marked and eliminated. Mixing-up with flawless products shall be avoided.

4.3.2 Subsequent repair of insufficient parts is permitted in accordance with the specification upon prior approval from the contracting subscriber and/or customer. These parts must be additionally marked before shipment. Delivery of repaired parts without prior approval is not allowed, unless otherwise agreed.

4.3.3 The supplier is obliged to inform the contracting subscriber of all identified nonconformities (description of the nonconformity, eliminated quantity, internal rejection, etc.).

5. Complaints from the contracting subscriber

5.1. Identification of nonconformity

5.1.1. In the event of nonconformities, the contracting subscriber informs the supplier about the identified nonconformities (quality, quantity, timely delivery, inappropriate marking, packaging, damage during transport, customer complaint, etc.) and request first feedback. The contracting subscriber requests the elimination of nonconformities and reporting in the form of an 8D report with the provision of immediate measures no later than within 24 hours, and within 30 days for the provision of long-term and preventive measures, unless otherwise required.

5.1.2 Supplying of goods with a missing report about the verification of the first sample and/or a missing certificate/evidence of verification is also considered as nonconformity. If the missing quality verification documentation has not been sent to the contracting subscriber within the agreed due date, the delivery is considered non-conforming. The contracting subscriber acts in accordance with the prescribed procedure regarding identified deviations and can return the goods to the supplier at his expense.

5.2 Omission from control of goods at takeover by the contracting subscriber

5.2.1 On the basis of the seamless production strategy the contracting subscriber accepts the goods according to the *"Ship to stock"* process. The contracting subscriber undertakes to inform the supplier of the identified quality/service nonconformities in the shortest possible time after their discovery.

5.2.2 In case of identified nonconformities at any stage of the contracting subscriber's/customer's process, the supplier will be required to conduct extraordinarily control of the goods until the nonconformities are resolved. The supplier waives his right to object to

a complaint due to established nonconformities and his right to object to the limitation period within 12 months from the transition of risk.

5.2.3 The contracting subscriber is not obliged to carry out further research in accordance with HGB, Article 377.

5.3 Complaint about nonconforming goods from the contracting subscriber

5.3.0 Before returning, the contracting subscriber will try to reach an agreement with the supplier to limit the arisen damage to the minimum extent possible.

5.3.1 In the event of occurrence/recognition of nonconformity at the overtake of goods or at any time in the further process of the contracting subscriber and/or end customer, the contracting subscriber is entitled to:

- return goods onto supplier costs
- demand sorting by the supplier or demand a refund of the sorting costs for the external contractor
- demand a refund of additional processing, repair or alternative supply costs

5.3.2 If the supplier failed to carry out the sorting and additional processing, an independent company will receive the order from the contracting subscriber for conducting the re-sorting and/or appropriate finalization at the expense of the supplier. This provision is valid until the elimination of the cause for nonconformity or the presentation of evidence on its elimination.

5.3.3 In the event of an occurrence/recognition of a nonconformity in the manufacturing process of the contracting subscriber, the contracting subscriber has the rights specified in the sections preceding to section 5.2. In addition he is eligible for the reimbursement of costs for the elimination/sorting of the semi-completed and/or finished product, as well as of costs due to the loss of production, and reimbursement of costs arisen at the customer. The contracting subscriber has the right to reimbursement of costs for special freight transport organized due to disruptions caused by the supply of no conformed goods.

5.3.4 In the event of an occurrence/recognition of a nonconformity at the contracting subscriber’s customer, the contracting subscriber has the rights specified in the sections preceding to section 5.2. In addition, the contracting subscriber is entitled to charge for the customer’s consequent costs, insofar as these costs are arising due to nonconformity of the supplier's product/service.

5.3.5 The costs arisen during the complaint process are charged to the supplier’s account according to the valid price list for complaints. The supplier is obliged to issue a credit within the statutory due date for no conformed goods.

5.4 High rate of production losses or repeated nonconformity

5.4.1 In case of repeated or permanent nonconformities regarding quality, and in the event of a major production loss/return of goods, the contracting subscriber may:

- take a look at the production and materials for checking the supplier

- analyze the problems or conduct extraordinarily control
- reduce the turnover (by including an alternative supplier)
- cancel the contract

5.5 Analysis of complaints and agreement on quality objectives

5.5.1 The supplier shall systematically monitor and analyze all complaints and take appropriate measures to prevent the recurrence of such nonconformities. On request, he shall provide this information to the contracting subscriber. The PPM objectives are set out in the supplier's evaluation (see section 2.3), which is based on the analysis of past complaints. The contracting subscriber's strategy is “NO DEFECTS”.

6. Other arrangements

If individual QSV provisions become invalid, this does not affect the validity of the remaining provisions. The contracting parties will replace the invalid provision with the other provision closest to the purpose that the parties wanted to achieve and acceptable for both contracting parties. This also applies in the case of a contractual gap.

6.1 Ownership of products and goods

6.1.1 The ownership of the production means and goods owned by the contracting subscriber shall be clearly labelled at the supplier's premises. Production means are tools, measuring tools and devices, control devices, etc., which the contracting subscriber hands over to the supplier for use. The contracting subscriber remains the owner of the production means and goods, irrespective of the transfer of the property for the purpose and the duration of the fulfillment of contractual obligations.

6.1.2. The supplier is obliged to keep a record of all production means received from the contracting subscriber.

6.2 Duration of the contract

6.2.1 Quality assurance requirements enter into force at the time of signing the supply contract or upon confirmation of the supply and/or provision of service.

6.3 Amendments

6.3.1 Amendments to this document are valid only in writing.

6.4 Competent court

6.4.1 For the settlement of disputes, the court where the contracting subscriber is established has jurisdiction.