# QUALITY ASSURANCE AGREEMENT (QAA) for automotive suppliers

between

XXX PURCHASER XXX

hereinafter referred to as the “PURCHASER” and

XXX SUPPLIER XXX

hereinafter referred to as the “SUPPLIER”

PURCHASER and SUPPLIER also individually referred to as the “contracting party” and collectively as the “contracting parties”

Quality is the critical key contributing to a company’s business success, so it is becoming increasingly important throughout the supply chain.

This quality assurance agreement (QAA) applies to all suppliers of production materials and to suppliers of raw materials and external services used in our products. Moreover, the requirements of this QAA apply to third-party services for our products and suppliers of production and operating resources, and testing and laboratory equipment. For simplicity, the terms PURCHASER and SUPPLIER will be used below.

This QAA describes the quality requirements of the PURCHASER and other companies associated with Stanley Black & Decker, Inc. for SUPPLIERS. It is for implementing coordinated quality management with the goal of ensuring the quality of joint products and the satisfaction of the end customer.

As a binding document, this QAA is part of all contractual agreements. Subsequent changes become binding if the PURCHASER has communicated them in writing to the SUPPLIER and the latter has not objected to them in writing within fifteen business days.

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# 1 GENERAL REQUIREMENTS

## 1.1 The purpose of this QAA (IATF 16949: Foreword on objectives)

As a supplier to the automotive industry, the PURCHASER manufactures high-quality products. The purpose of this QAA is to ensure supply and production of high-quality, defect-free products through suitable, technically accepted and economically sensible means.

This QAA is intended to specify the minimum requirements for the SUPPLIER's quality management system to prevent quality problems. It is intended to ensure smooth processes between the PURCHASER and SUPPLIER and to minimize cost.

The QAA explains the technical and organizational framework and processes necessary to achieve the intended quality objective. All processes must be aimed at "continuous improvement" and "zero defects". The quality of the SUPPLIER has a significant impact on the PURCHASER's internal processes and therefore on the quality of the finished product. It is the SUPPLIER's responsibility to adhere strictly to this QAA and to product liability and warranty obligations.

## 1.2 Validity of the agreement (IATF 16949: Chapter 1.1)

This QAA applies to all contracts between the PURCHASER and the SUPPLIER. Deviations the SUPPLIER may want from this QAA require the PURCHASER's consent, confirmed in writing.

To the degree possible, this QAA does not replace the requirements of DIN EN ISO 9001, DIN EN ISO 14001, VDA volume 1, VDA volume 2, VDA volume 4, VDA volume 6.1, VDA volume 6.3, AIAG-CQI and IATF 16949, or the standards of external customers. This QAA represents the PURCHASER's minimum requirements.

In addition to this QAA, the PURCHASER's currently valid General Purchase Conditions apply. The SUPPLIER's General Business Conditions do not apply.

Moreover, the supplier must observe and adhere to all current customer-specific requirements for the specific projects. If the supplier has no access rights to them – such as through a customer portal or similar – they must be actively requested from the purchaser.

Additionally, the supplier must observe and fulfil all specific requirements of the PURCHASER's customer, in accordance with the specific projects. If the SUPPLIER has no access to them, such as through a customer portal, etc., they must be actively requested from the PURCHASER.

## 1.3 Confidentiality (IATF 16949:Chapter 8.1.2)

Each contracting party is obligated to keep all information received from the other contracting party and the content of this QAA secret from third parties and not to use them for purposes other than collaboration under this QAA.

If this QAA ends, the contracting parties are obligated to return all transferred documents upon request. This confidentiality obligation also applies to the time after the QAA ends.

Insofar as the contracting parties have concluded a separate confidentiality agreement, the provisions made in such a confidentiality agreement take precedence over the provisions above.

### 1.4 Warranty (IATF 16949: Chapter 10.2.5)

Insofar as the contracting parties have concluded a separate warranty agreement, the provisions made in such a warranty agreement apply.

The SUPPLIER is obligated to the PURCHASER to honour the warranty even if the PURCHASER does not discover the defect until during or after processing, regardless of the incoming goods inspection limited in Chapter 4.1. However, upon detection of defects, the SUPPLIER will be notified immediately and asked to limit the damage. It is strongly recommended that SUPPLIERS clarify the points above with their liability insurer to ensure that they can still obtain the necessary product liability insurance, including recall cost insurance.

### 1.5 Risk management/emergency response planning (IATF 16949: Chapter 6.1.2.3)

The SUPPLIER ensures that all potential incidents that may affect the ability to deliver in the supply and process chain are identified and evaluated separately and independently.

Events that may lead to an emergency, such as machinery failure, staff shortage, cyber/online attack on computer systems, contractor failure and emergency measures, must be described in the emergency response plan. The emergency response plan must be checked annually for its effectiveness, adjusted if necessary, and submitted to the PURCHASER upon request.

### 1.6 Product liability (IATF 16949: Chapter 4.4.1.2)

The SUPPLIER is obligated to maintain extended product liability coverage, including coverage for warranty liability, connection, mixing and processing damage, further processing damage, removal and installation costs, well as testing and sorting costs, including damage abroad (worldwide).

The minimum coverage per damage case must be €5 million. The requirements for insurance coverage do not represent any limitation of liability; they serve the sole purpose of mitigating the liability risk borne by our SUPPLIERS.

### 1.7 Quality capability (IATF 16949: Chapter 4)

The SUPPLIER is fully responsible for the products and services he delivers. The SUPPLIER is obligated to establish and maintain a quality management system. It is preferable to proceed according to DIN EN ISO 9001 and IATF 16949. The SUPPLIER must verify the effectiveness of his QM system through a certificate at least according to DIN EN ISO 9001. Use of crucial quality management tools (core tools) from IATF 16949 is expected. The SUPPLIER's clear development objective is IATF 16949. The SUPPLIER provides the PURCHASER with the valid certificates unsolicited and also notifies him unsolicited when a certificate has expired.

The SUPPLIER will allow system, product, process and information security audits to be performed by the PURCHASER after coordination – and, at the PURCHASER's request and that of his customer. For this purpose, the representatives of the PURCHASER and his customer are to be allowed access to the production facilities. In this case, the confidentiality agreed to in Chapter 1.3 also applies to the PURCHASER's customer.

The SUPPLIER will obligate his subsuppliers to adhere to the obligations he has agreed to under this agreement. Alternatively, the SUPPLIER must ensure the quality of supplies through his own processes

and experience. The PURCHASER can demand from the SUPPLIER documented verification that the SUPPLIER is convinced of the effectiveness of the quality management system at his subsuppliers and/or has ensured the quality of externally purchased parts or services through other suitable measures.

Insofar as the PURCHASER provides the SUPPLIER with production and testing equipment, the SUPPLIER must integrate it into his own quality management system as his own production and testing equipment, unless otherwise agreed. All operating equipment, such as tools or measuring instruments, that the SUPPLIER needs to provide services and are in his possession but are property of the PURCHASER or his customer must be clearly and permanently marked as such. The SUPPLIER is always responsible for calibration of such operating and measuring equipment. Agreements to the contrary must be separately concluded. For example, if the SUPPLIER delivers scopes to the PURCHASER that affect the supply chain of Daimler AG, the MBST (Mercedes Benz Special Terms) in their current form must be taken as the basis. If the supplier has no access to the Daimler supplier portal, he must request the valid version from the PURCHASER.

For example, if the SUPPLIER delivers scopes to the PURCHASER that affect the supply chain of Volkswagen AG, the following requirements apply:

- The internal audit must be done by appropriately qualified VDA 6.3 auditors throughout the supply chain (see VDA 6.3: Requirements for internal auditors). The SUPPLIER must internally check the effectiveness of the improvement program as part of the self-audit. The VOLKSWAGEN Group expects its suppliers to perform self-audits that go beyond the improvement programs' agreed scope of requirements in order to meet the requirement of self-qualification. The self-audit must be done like a process audit according to Chapter 6 with a parallel product audit according to Chapter 4. In principle, outsourced processes must be taken into account. For overall assessment of quality capability, the rules in Chapter 6 Process Audit must be used. The VOLKSWAGEN Group requires its suppliers to perform self-audits at least once per year (maximum validity period 12 months) for all process steps. The self-audit must be sent to the PURCHASER upon request.
- The systematic and consistent approach to verification of TLD parts is randomly checked and evaluated by the SUPPLIER during TLD self-audit as part of process audit.
- The product audit must be done according to VDA 6.5. For each series-produced product, a product audit must be done at least once a year. The product audit must be governed by the production control plan.

Quality guidelines and standards agreed to with the PURCHASER are binding on the SUPPLIERS.

### 1.8 Target agreements (IATF 16949: Chapter 6.2)

The SUPPLIER is obligated to the zero-defect goal and must therefore continuously optimize his performance. This goal must be striven for through measures such as consistent quality planning and series monitoring with the focus on defect prevention. For non-cold-formed products, annual ppm targets may be set in a ppm agreement. Determination of such ppm targets does not affect the SUPPLIER's obligation to deliver only defect-free products or the PURCHASER's defect claims when defective products are delivered.

# 2 PRODUCT AND PROCESS DEVELOPMENT (ADVANCE QUALITY PLANNING)

## 2.1 Project management (IATF 16949: Chapter 7.5)

To integrate the SUPPLIERS as early as possible into quality planning, the PURCHASER principally requires systematic planning according to VDA RGA or AIAG APQP within its SUPPLIERS' project management. This planning involves both products delivered by SUPPLIERS and their purchased parts or outsourced processes.

## 2.2 Inquiry documents (IATF 16949: Chapter 7.5)

With the PURCHASER's request, the SUPPLIER receives technical documents (e.g. 3D data, drawings, specifications, specification books, customer requirements and standards, and test regulations). For drawing up an offer, the SUPPLIER must request any missing documents in writing. Through its change management, the SUPPLIER ensures that all affected departments always have access to the latest documents provided by the PURCHASER. Invalid/outdated documents must be marked as such and removed from circulation. Upon request, the PURCHASER offers the SUPPLIER technical support from the appropriate specialized departments. If the SUPPLIER recognizes that the design or test procedures specified in the technical documents can be replaced by more suitable, more economical and/or more effective ones, the PURCHASER expects appropriate suggestions.

## 2.3 Scope of offer

The CLIENT expects the SUPPLIER to clearly take the respective inquiry documents into account in his offer. Deviations from these inquiry documents must be designated by the SUPPLIER in the form "Request for modification or special approval" (appendix 1). See Chapter 7 CHANGE MANAGEMENT.

### 2.3.1 Manufacturability analysis (IATF 16949:Chapter 8.2.3)

The manufacturability analysis must be prepared when the offer is submitted and is a prerequisite for awarding the contract.

According to a new or changed specification, a feasibility analysis including the assessment of all quality-relevant requirements (e.g. PPAP/PPF) and capacity planning must be done by the SUPPLIER. The assessed criteria for manufacturability or feasibility must be communicated to the PURCHASER in keeping with the form (appendix 2) as part of the offer documents.

### 2.3.2 Schedule (IATF 16949: Chapter 8.1)

The SUPPLIER draws up a project-related schedule, including resource planning, that also integrates the subsuppliers' scheduling. This schedule must be submitted to the PURCHASER with the final offer, and contains the following criteria:

- Manufacturability analysis
- Process flowchart
- Process FMEA or if necessary Product (design) FMEA
- Production control plan (PLP)/Testing plan

- Resources for monitoring and measurement
- Tool schedule, including regular updating
- Project-related milestones, including PURCHASER's milestones
  - Date of initial sampling
  - Workplace approval/internal process audit per VDA 6.3
  - Start of production (SOP)

The schedule can be changed only with the consent of the PURCHASER and with sufficient advance notice.

### 2.4 Order (IATF 16949: Chapter 7.5)

With the PURCHASER's order, the SUPPLIER receives binding, approved technical documents (e.g. 3D data, drawings). The SUPPLIER must inspect the documents and is obligated to notify if changes are discovered in relation to the inquiry status.

### 2.5 Obligation to inform (IATF 16949: Chapter 8.2)

If it becomes apparent that agreements made (such as those regarding quality characteristics, dates, delivery quantities) cannot be adhered to, the SUPPLIER must inform the PURCHASER of this immediately and initiate his internal escalation process. In the interest of finding a quick solution, the SUPPLIER must disclose data and facts.

#### 2.5.1 Request for change approvals (IATF 16949:Chapter 8.3.6)

The SUPPLIER must send the completed form "Request for modification or special approval" (appendix 1) in the event of deviations from the PURCHASER's specification.

The PURCHASER's change approval must be obtained during the offer phase and must be an integral part of the offer and sampling, insofar as the PURCHASER offers deviations.

### 2.6 Special characteristics (IATF 16949: Chapter 8.2.3.1.2/8.3.3.3)

Special characteristics require special attention, because deviations in these features can have an impact on product safety, service life, assembly capability, function or quality subsequent production steps, as well as compliance with legal regulations.

Special features are specified by the PURCHASER. If there are no specifications for special characteristics, the SUPPLIER must independently select product and process characteristics that are useful for product quality and process assurance. These result from the SUPPLIER's risk analyses, such as from the product (design) and/or process FMEA. Special characteristics specified by the PURCHASER must be assessed in the FMEA with a significance number B ≥ 8.

Special characteristics must be identified by the SUPPLIER and marked in all relevant product and process documents (such as drawings, FMEA, risk analyses, testing and production control plans). Special characteristics must be considered and monitored in all relevant planning steps. For verification of special characteristics, the scope and retention period of the necessary documents must be defined accordingly.

### 2.7 Process flowchart (IATF 16949: Chapter 8.3.5.2)

For visual representation of the process chain, the SUPPLIER must create a process flowchart. This process flowchart must match the product (design) and/or process FMEA and the production control plan. Outsourced processes must be listed as part of the process flowchart.

### 2.8 FMEA (IATF 16949: Chapter 8.3.5)

The FMEA is a method for recording potential errors in development and production/assembly of a product or in new manufacturing processes and for evaluating the resulting risks and avoiding them through appropriate measures. They are implemented by an interdisciplinary team.

An FMEA must be created or revised on the following occasions:

- Development/production of new parts
- Introduction of new production processes
- Site relocations
- Drawing changes
- Change in production processes
- for defect prevention

When creating an FMEA, the following points must be considered:

- Special characteristics
- Material change or mixture
- Version management
- Separation of defective parts, reworked parts, adjustment parts and sample parts
- Technical cleanliness
- Lessons learned from similar products and processes

The FMEA must be done according to the methodology described in VDA volume 4 or the AIAG FMEA handbook.

#### 2.8.1 Product (design) FMEA

A product (design) FMEA must be done for all items developed under the SUPPLIER's responsibility.

#### 2.8.2 Process FMEA

For all of an item's process steps, the SUPPLIER creates a process FMEA. Special characteristics and any results of the product (design) FMEA must be specially considered. Furthermore, the process FMEAs must be updated if there are changes or claims.
The FMEAs must be provided to the PURCHASER for inspection upon request. Proof of creation of an FMEA must be provided with a corresponding cover sheet no later than the time of initial sampling. Minimum requirements are information on the initial system, change status, FMEA team, and an overview of the RPZ numbers and the evaluation key used (preferably according to the AIAG standard or to customer specifications).

## 2.9 Production control plan (PLP) (IATF 16949: Chapter 8.5.1.1)

The production control plan is a planning tool. It must be derived from the FMEA and contain all characteristics evaluated in the FMEA as relevant to quality. It is created by an interdisciplinary team and includes test of incoming goods, initial, intermediate and final parts, and re-qualification tests. Initial part tests are done with every new production order, and final part tests must be done at the end of the order. For production orders that last longer than a week, the tests must be performed no later than the seventh day of production, the same as the scope of testing for initial and final part tests .

The production control plans must consider the results and experiences from similar processes and products. The production control plan must be created according to IATF 16949 Appendix A1 for the prototype, pre-series and series phases.

The layout of the production control plan must reflect automotive industry specifications according to IATF 16949 Appendix A2.

## 2.10 Testing schedule (IATF 16949: Chapter 8.5.1)

The production control plan is the basis for the testing schedule. The testing schedule shows all features to be tested along with the associated test equipment and the test frequency for each operation.

Machine and process capability studies must be planned for special characteristics. When planning, determination of employee training courses for and, if necessary, workplace setup for statistical process control (PLC, control card technology) must also be considered.

## 2.11 Resources for monitoring and measurement (IATF 16949: Chapter 7.1.5.1.1)

The SUPPLIER must define test methodology with the appropriate test equipment for all characteristics to be tested under the production control plan. The procurement process must be planned such that the necessary testing equipment is available at the start of pre-series and test process suitability is verified.

The SUPPLIER must provide proof according to the requirements of VDA volume 5 or AIAG MSA. The records for monitoring of all gauges, measuring and testing equipment must be retained.

## 2.12 Statistical process control (IATF 16949: Chapter 8.3.5.2/9.1.1.1)

The SUPPLIER will continuously evaluate his processes and process flows using suitable software-based methods, to analyse errors and to take appropriate corrective measures to maintain and improve the process capability and meet all zero-defect requirements. The continuous verification must be provided by using a CAQ system or other suitable methods.

Process capability studies serve as a benchmark for the processes' quality capability. For all special characteristics and, if necessary, for other agreed test characteristics, the SUPPLIER must introduce suitable safeguards and make them available to the PURCHASER upon request.

If there are no further, higher-level requirements from the PURCHASER's customers, the following limits apply to verify process capability:

- Machine capability (MFU): CmK ≥ 1.67
- Preliminary process capability (PPU): PpK ≥ 1.67
- Long-term process capability (PFU): CpK ≥ 1.33 with continuous improvement

MFU and PPU must be done as part of sampling. The PFU is documented by the SUPPLIER in the current series and provided to the PURCHASER upon request.

Capabilities are determined based on VDA volume 4 or the AIAG PLC handbook. Deviating requirements on process capability or the process capability index are agreed to separately. If the process capability cannot be maintained, the SUPPLIER must inform the PURCHASER and immediately perform 100% inspections to prevent delivery of defective parts.

### 2.13 Requirements for substances and materials (IATF 16949: Chapter 8.3.4.4/8.4.2.2)

All purchased parts, substances and materials used for the object of the contract in the SUPPLIER's production and the processes required to manufacture the products must comply with the applicable legal regulations and official requirements, such as with regard to environmental protection and safety, that apply in the country of production, distribution and destination. Otherwise, the regulations in Chapter 10 apply.

With each delivery, the SUPPLIER provides the current safety data sheet unsolicited. If changes are recorded in the meantime, the PURCHASER will receive the updated version without being asked. If an Acceptance Test Certificate 3.1 per DIN EN 10204 is required according to the order documents, this must be drawn up by the SUPPLIER and submitted within one day upon request (except for wire suppliers, where it is mandatory that a separate 3.1 certificate be sent to the following email address before delivery: s-eft-qualitymetal@sbdinc.com)

The SUPPLIER will enter all substances, substance groups and material data into the International Material Data System (IMDS) of the automotive industry at www.mdsystem.com.

## 3 RESULT OF PRODUCT AND PROCESS DEVELOPMENT

### 3.1 Sampling of prototypes and pre-series parts (IATF 16949: Chapter 8.3.4.3)

Prototypes and pre-series parts are products that are not manufactured completely under series conditions. The SUPPLIER must sample such prototypes and pre-series parts according to VDA volume 2 or AIAG PPAP or according to customer agreement.

### 3.2 Initial sampling (IATF 16949: Chapter 8.3.4.4)

For initial orders of new products for Europe, the SUPPLIER must sample according to the current VDA volume 2 (production process and product release PPF) and for NAFTA countries according to the current AIAG PPAP, unless the PURCHASER specifies otherwise. Alternatively, the scope of sampling can also be defined between the PURCHASER and the SUPPLIER using a jointly agreed "PPAP checklist".

The initial sampling includes use of the series tools, and series machines, systems and devices including compliance with the series parameters and series cycle time, at the series production site, series packaging and logistics. Furthermore, the initial sampling is done by personnel who are also used for further series production and are trained according to the work and testing instructions. Moreover, the products and processes of the production materials are approved. The SUPPLIER must record and archive the process parameters set during initial sampling and add them to the internal sampling documents.

For all special characteristics and, if necessary, other agreed test characteristics, the SUPPLIER must perform and document detailed analyses of the suitability of the production systems and test equipment used, in addition to process capability studies. For determining the MFU machine capability, all parts used must have the same prerequisites and be produced consecutively. For normal distributions, a random sample of at least 50 units must be selected. Evaluation of the previous process capability PPU must not be done until at least 25 samples are available, each with five measurement values. The required limit values can be found in Chapter 2.12.

For goods relevant to production safety, the requirements of IATF 16949 (Chapter 4.4.1.2) must be complied with and observed accordingly in the supply chain.

Series delivery must not start until after the initial sample is approved. The submission stage for sampling according to VDA or PPAP is determined by the PURCHASER when placing the order. The precise requirements are found in the order documents (drawings, technical specifications, standards, etc.).

If external laboratories are used, they must be accredited under ISO/IEC 17025 (or comparable national standards). The sampling documents must be sent to the PURCHASER in electronic form. For tests that last longer (such as salt spray tests), the PURCHASER requests the note “test results to be submitted later”.

### 3.3 Retention samples (IATF 16949: Chapter 8.5.1.1)

Retention samples – at least three and undamaged – are stored by the SUPPLIER safely and protected against environmental influences. If dimension, colour, external appearance or surface are relevant to the product and its use, the retention samples apply as a reference (such as for welding).

## 4 ENSURING PRODUCT AND PROCESS QUALITY IN THE SERIES

Responsibility for using effective systems for monitoring and continuous improvement of process and product quality lies with the SUPPLIER.

As far as technically possible, monitoring methods must be used that forcibly prevent delivery of defective products.

The SUPPLIER is obligated to observe the requirements of the AIAG regarding evaluation of technical processes through annual CQI assessments in his own operation (if indicated) as well as in his supply chain. The CQI assessments must be given to the PURCHASER upon request.

### 4.1 Discharge tests on the part of the PURCHASER (IATF 16949:Chapter 8.6.4)

The SUPPLIER is responsible for the outgoing inspection and therefore for trouble-free delivery.

The PURCHASER limits incoming goods inspection for deliveries from the SUPPLIER to determining deviations in compliance with the quantity and identity of the ordered contractual products and to transport and packaging damage. Deviations and damage determined are immediately reported. In this respect, the PURCHASER is freed from the obligation to investigate and report complaints (according to § 377 HGB).

The PURCHASER will also check the delivered goods during production in keeping with the conditions of a proper business process and report to the SUPPLIER any defects that occur immediately after they are discovered. In this respect, the SUPPLIER waives objection to late notification of defects.

The SUPPLIER should note that it is in his interest to coordinate the regulations above with his liability insurer.

### 4.2 Handling defective or parts suspected of defects (IATF 16949: Chapter 8.7/10.2.3/10.2.6)

If the PURCHASER or a customer of the PURCHASER detects a defect, notification of the defect (claim) is created through a test report and/or written communication. Defect samples will be sent to the SUPPLIER or made available to the PURCHASER for viewing, to the degree this is possible with reasonable effort by the PURCHASER.

The SUPPLIER receives information as to whether the defective goods can be conditionally installed or sorted out by the PURCHASER. Rework is generally not allowed and always requires prior coordination with the CLIENT. As part of approved rework, the SUPPLIER remains responsible for the conformity of the goods in keeping with drawing requirements. The SUPPLIER is must sort out and replace defective deliveries at his own expense so that the PURCHASER does not incur damages. The PURCHASER will give the time frame for such actions. The SUPPLIER must clarify whether there are other defective goods at or in transit to the PURCHASER and inform the CLIENT of this.

The SUPPLIER must check his own inventories for defects and if necessary sort out or scrap. It must be ensured that no further defective products are delivered to the PURCHASER. The SUPPLIER must ensure that products to be scrapped are made unusable before they are disposed of. The PURCHASER can scrap delivered defective products directly on site with the consent of the SUPPLIER. If the SUPPLIER wishes, this can be done under the supervision of a representative of the SUPPLIER. The SUPPLIER bears the cost of scrapping.

If the SUPPLIER detects defects on his premises, by which goods already delivered may be affected, the PURCHASER must be notified immediately. Immediate measures initiated must be communicated right away.

After arrival of an inspection report, the SUPPLIER must communicate all actions (such as immediate actions, interim and long-term corrective actions) to the PURCHASER in the form of an 8D report. The SUPPLIER informs the PURCHASER no later than 24 hours after receipt of a complaint of the immediate measures implemented (steps 1 to 3 of the 8D report). The interim corrective measures (steps 4 to 5 of

the 8D report) must be communicated within 3 business days, and the long-term corrective measures (steps 6 to 8 of the 8D report) within 10 business days. An extension of this deadline, such as through a comprehensive analysis of subsuppliers, must be reported by the SUPPLIER before the deadline expires. When analysing the causes, the SUPPLIER uses suitable methods (such as Ishikawa cause-effect diagram, 5 Whys). The SUPPLIER is responsible for monitoring the effectiveness of the interim and long-term actions. The PURCHASER reserves the right to an effectiveness inspection.

If complaints accumulate or reports of defects or test reports are not answered properly, visits and quality discussions are held with the SUPPLIER. If necessary, appropriate audits are conducted at the SUPPLIER. The PURCHASER reserves the right to charge the SUPPLIER for resulting extra expense. Damages claims resulting from complaints and complaint follow-up costs will also be invoiced to the SUPPLIER.

### 4.3 Damage analysis field/No Trouble Found Process (NTF) (IATF 16949: Chapter 10.2.5/10.2.6)

In the case of field complaints, a method for defective parts analysis must be used in addition to the 8D report, including a No Trouble Found process and an assessment of the parts returned from the markets. To prevent the defect from recurring, problem solution approaches and corrective actions must be initiated or implemented. The SUPPLIER must communicate the results of these analyses, findings and actions both internally and to the PURCHASER.

### 4.4 Escalation (IATF 16949: Chapter 8.4.2.5)

If a SUPPLIER repeatedly causes quality problems for the PURCHASER and/or a risk to the customer is expected, the PURCHASER will proceed according to a defined escalation model. The PURCHASER reserves the right to invoice the SUPPLIER for additional expenses incurred due to extraordinary supplier development (e.g. event-oriented supplier audit).

## 5 TRACEABILITY AND DOCUMENTATION

### 5.1 Traceability (IATF 16949: Chapter 8.5.2.1/8.5.4.1)

The SUPPLIER ensures traceability and complete quality verification of all materials, manufacturing processes and products through suitable production labelling measures. This also includes compliance with the FIFO principle throughout the supply chain.

Traceability must be designed in such a way that, if there is a defect, the defective products can be isolated at least to the relevant carrier. The SUPPLIER must draw up a traceability plan and observe it. Each package number and batch of a shipping unit (such as individual boxes on a pallet) must be listed on both the delivery slip and the incoming inspection certificate. The delivery slip number can be used to ensure traceability throughout the process chain.

Moreover, all deliveries must be marked according to VDA 4902.

### 5.2 Recording deadlines (IATF 16949: Chapter 7.5.3.2.1)

Documentation is the responsibility of the SUPPLIER and must be done in a suitable form (fireproof and loss-proof), and exercise of care must be demonstrated where necessary (proof of discharge).

All technical documents are subject to a retention period of eighteen (18) years after the end of series production (End of Production = EOP). Longer retention periods (up to 30 years) are recommended given the statute of limitations for product liability claims. The retention period for all other quality-related data is three years beginning at the end of the year when the data was created. The corresponding quality records must be presented to the PURCHASER immediately upon request.

# 6 REQUALIFICATION TEST (IATF 16949:Chapter 8.6.2)

The PURCHASER requires an annual re-qualification test. The re-qualification must be performed to the full extent of the initial sampling. The SUPPLIER performs the re-qualification test unsolicited and makes the documents or extracts available to the PURCHASER upon request. The first re-qualification must take place one year after serial approval and then in annual cycles.

# 7 CHANGE MANAGEMENT (IATF 16949: Chapter 8.2.4)

When submitting an offer, the SUPPLIER must take into account that the machines and systems used must correspond to the product life cycle of the goods and must be state of the art.

To be able to properly complete the scope of testing required for series validation, the SUPPLIER must make changes to the manufacturing process, in particular changes to production processes and production procedures, relocation of production facilities and the change of a subsupplier, in a timely manner before the planned conversion date at the PURCHASER. Intended changes at subsuppliers must also be considered. The SUPPLIER must not implement the change until after approval of a change request (appendix 1) in conjunction with an initial sample approval. The PURCHASER's approval of changes must be attached to the corresponding sampling documents.

In the event of a change initiated or requested by the PURCHASER, this must be properly and fully evaluated by the SUPPLIER in the manufacturability analysis provided by the PURCHASER, as described under 2.3.1. (Manufacturability analysis).

## 7.1 Reason for renewed product and process approvals (IATF 16949:Chapter 8.5.6)

A new sampling is required under the current VDA volume 2 – Trigger matrix.
Exceptions to the procedure and scope are only permitted with written approval from the PURCHASER.

## 7.2 Product history(IATF 16949: Chapter 8.4.2.4)

At the PURCHASER's request, the SUPPLIER must provide a product history. Allchanges to the product and changes in the process chain must be documented in a product history in accordance with VDA volume 2.

## 7.3 Special approvals by the customer (IATF 16949: Chapter 8.7.1.1)

In the event of deviations from the product or service specification (drawing, technical delivery conditions, material, material properties, etc.) or from the approved process, the supplier must apply for special approval before delivering the products to the PURCHASER. For this, written approval or special approval must be obtained from the PURCHASER.

Deviating deliveries in the series over a specific period or quantity are only permitted with written special approval (appendix 1) from the PURCHASER. Furthermore, the supplier must mark deviating deliveries as deliveries with special approval. For this, the SUPPLIER is provided with a labelling template (appendix 3), which must be legibly attached to each packaging unit.

# 8 PURCHASER'S SUPPLIER MANAGEMENT

## 8.1 Supplier monitoring and evaluation (IATF 16949: Chapter 8.4.2.4)

At least once a year, the PURCHASER conducts a supplier evaluation for SUPPLIERS of production material, raw materials and third-party services. The SUPPLIER is informed of the results in writing. The declared goal is to work primarily with A-suppliers. If rating as an A-supplier has not been achieved, measures must be taken (e.g. creation and execution of an action plan) to provide the A-level delivery service required by the PURCHASER.

## 8.2 Supplier qualification/development (IATF 16949: Chapter 8.4.2.5)

The starting point for supplier qualification is first-time engagement as a new SUPPLIER. New SUPPLIERS/applicants are evaluated and qualified using potential analysis in accordance with VDA 6.3.

The goal of the PURCHASER's supplier development is systematic improvement in delivery performance based on regular analysis over an extended period of time. The starting point for supplier development is the supplier evaluation and the number and severity of defect reports/complaints. If a SUPPLIER was conspicuous in one of these criteria within the previous observation period, a detailed as-is assessment is conducted based on the existing data, such as through supplier discussions, on-site visits, targeted inspection or request for documents, and classification of the SUPPLIER in an escalation level according to the following matrix.

| **Development stage** | **Criteria** | **Problem solution** | **Exit criteria** |
|---|---|---|---|
| E0<br>(observation) | The SUPPLIER does not stand out in the supplier evaluation. | Continued monitoring with routine<br>supplier evaluation | none |
| E1<br>(extraordinary supplier development) | The SUPPLIER is conspicuous due to late and/or defective delivery or major damage at the PURCHASER with potential hazard to the customer. | Supplier visits/(event oriented) suppler<br>audits (according to VDA 6.3) | Defect or potential risk has been verifiably eliminated. |
| E2<br>(supplier development) | The SUPPLIER is conspicuous in the supplier evaluation<br>and/or due to late and/or defective delivery. | Supplier visits/<br><br>action plan, including proof of effectiveness | Defect or potential risk has been verifiably eliminated.<br>Effectiveness confirmed. |

| | | | |
|---|---|---|---|
| E3<br>(hazard) | The SUPPLIER is conspicuous in the supplier evaluation<br>and/or there are repeated late and/or defective deliveries. | Supplier audits per (per VDA 6.3) | Defect or potential risk has been verifiably eliminated. Effectiveness confirmed. Supplier audit VDA6.3 by PURCHASER min. B classification. |
| E4<br>(New Business on Hold) | After classification of the SUPPLIER as E3, the actions initiated show no lasting improvement. The SUPPLIER is evaluated as critical. | The SUPPLIER is currently blocked from new projects/supplier audits (per VDA 6.3) | Defect or potential risk has been verifiably eliminated. Effectiveness confirmed. Supplier audit VDA6.3 by PURCHASER min. B classification. In addition, business-on-hold status MUST be lifted by the PURCHASER through an internal interdisciplinary team. |

The aim is to achieve systematic, long-term improvement in delivery performance through effective measures, particularly

- improving the SUPPLIER's QM system
- improving product quality,
- lowering costs and
- improving delivery reliability or logistical processes.

### 8.3 Supplier audits (second-party audits) (IATF 16949: Chapter 8.4.2.4.1)

If quality problems arise or as part of the optimization of processes, the PURCHASER is allowed, after prior agreement, to have his employees conduct a system, product or process audit in accordance with VDA Volume 6.3.

The process audits are conducted according to VDA 6.3 guidelines, and if necessary, expanded to include customer-specific requirements, by the PURCHASER's VDA 6.3-qualified process auditors.

For this purpose, the auditors are granted free access to the SUPPLIER's areas that are involved in the planning, development and production of the materials to be delivered to the PURCHASER. Appropriate restrictions by the supplier to protect his trade secrets are accepted. During these quality audits, the supplier will provide all necessary documents and information from all relevant levels of the supplier's supply chain and provide the information requested by the PURCHASER. The PURCHASER will document the result and the agreed improvement measures in the audit report. The supplier is responsible for implementing the audit measures and for regularly informing the PURCHASER about the processing status.

In addition to the triggers described in the matrix from Chapter 8.2, supplier audits can also be used for the following purposes:

- Supplier approval processes
- Issuance of new orders (new products)
- Start of production (acceptance of series production)
- Changes to the production process or test procedure
- Change of equipment or production site/relocation
- Routine supplier monitoring
- Ongoing escalation process by the PURCHASER's customer
- Negative audit result (C classification)

## 9 SUBSUPPLIER MANAGEMENT (IATF 16949: Chapter 8.4)

Subsuppliers have a significant impact on the quality of the end product. The SUPPLIER must maintain a documented supplier management system. The SUPPLIER is responsible for development of his subsuppliers. The SUPPLIER must have the required competence and capacity to guide his subsuppliers and monitor their performance. Moreover, the regulations in Chapter 1 on subsuppliers apply.

If quality problems occur that are caused by subsuppliers, the supplier will enable the PURCHASER to conduct a system, product or process audit at the subsupplier, if necessary. The SUPPLIER conducts annual self-audits in the form of a VDA 6.3 process audit on the products contracted by the PURCHASER. The results of the self-audit are sent to the PURCHASER upon request.

## 10 LEGAL AND OFFICIAL REGULATIONS (IATF 16949: Chapter 1/8.4.2.2)

The SUPPLIER will ensure that all applicable legal and official requirements of the exporting country, importing country and the destination country specified by the customer are met. If the SUPPLIER does not know the countries in question, he must inquire about them from the PURCHASER.

The CLIENT points out that all references to legal and official requirements listed in this QAA refer to the currently valid status.

## 11 PRODUCT SAFETY (IATF 16949: Chapter 4.4.1.2)

The SUPPLIER appoints a person responsible (such as a product safety and product conformity officer) and ensures their qualifications through appropriate training. If responsibility changes, the SUPPLIER must notify the PURCHASER and inform him of the new person responsible. The SUPPLIER must ensure the product safety requirements from the subsuppliers also.

## 12 SEVERABILITY CLAUSE

If a provision of this QAA is or becomes fully or partially invalid or unenforceable, this will not affect the other provisions. Instead of the invalid or unenforceable provision, a valid and enforceable provision will be agreed to that comes closest to the intention of the invalid or unenforceable provision. The same applies to loopholes.

## 13 VALIDITY PERIOD

This quality assurance agreement applies indefinitely but can be terminated in writing with 6 months' notice at the end of a quarter. The quality assurance agreement remains valid, however, for all deliveries based on delivery contracts entered into before the end of this quality assurance agreement.

## 14 OTHER APPLICABLE DOCUMENTS

| Short name | Title |
|---|---|
| AIAG APQP | Advanced Product Quality Planning and Control Plan |
| AIAG FMEA | Potential Failure Mode an Effects Analysis |
| AIAG MSA | Measurement Systems Analysis |
| AIAG PPAP | Production Part Approval Process |
| AIAG SPC | Statistical Process Control |
| AIAG CQI | Continuous Quality Improvement |
| DIN EN 10204 | Metallic products - Types of inspection documents |
| DIN EN ISO 9001 | Quality management systems - Requirements |
| DIN EN ISO 14001 | Environmental management systems - Requirements with guidance for use |
| IATF 16949 | Requirements for quality management systems for series and spare parts production in the automotive industry |
| VDA volume 1 | Document and archiving |
| VDA volume 2 | Ensuring quality of deliveries |
| VDA volume 4 | Ensuring quality in the process landscape |
| VDA volume 5 | Test process suitability |
| VDA volume 6.1 | QM system audit |
| VDA volume 6.3 | Process audit |
| QSV appendix 1 | Request for modification or special approval |
| QSV appendix 2 | Manufacturability and feasibility analysis |
| QSV appendix 3 | Special approval labelling template |