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Quality Assurance Agreement QAA

Between Supplier

(Company name)
(Address 1)
(Address 2)


hereinafter referred to as "supplier"

and

S.M.A. Metalltechnik GmbH & Co. KG
hereinafter referred to as "SMA"
All locations

Karl-Ferdinand-Braun Str.9
71522 Backnang


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1 Preamble

In the increased national and international competition, quality and reliability are the decisive criteria for a good and lasting cooperation between supplier and client.

SMA uses parts manufactured by suppliers for the production of its products to a large extent. The perfect quality and reliability of these products significantly influences the quality of the products made from them. In order to be able to meet these requirements in the medium and long term, it is essential to purchase the products and services from competent, reliable and quality-conscious partners.

Decisive criteria for quality awareness are:

- **Quality planning**
- i.e. systematic risk analysis for product and process in advance of series production (defect prevention instead of testing)
- **Statistical process control**
- i.e. continuous monitoring of the quality level and immediate intervention if required
- **Continuous improvement process**
- i.e. to constantly improve quality and productivity to secure efficiency and improve market position.

The quality of products and services supplied, the quality capability and the reliability of our suppliers are therefore decisive criteria for the purchase decision at SMA.

2 Purpose

This Quality Assurance Agreement (QAA) contains regulations for SMA suppliers regarding requirements for the quality management system and the achievement of the Zero-defect target. The term defect in this document also includes errors in the meaning of other contracts concluded between the contracting parties.

3 Scope

These provisions apply


to all companies of the SMA Group

and are an integral part of all contracts for the manufacture and supply of production materials (products).

4 Quality target

SMA demands a "zero-defect target" from its suppliers. In order to pursue this zero-defect target, consistent advance quality planning, implementation in production, effective series monitoring, requalification and a continuous improvement process (CIP) are indispensable. The focus here must be on defect prevention rather than defect detection. The Supplier shall manufacture the products in

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accordance with the rules of the required quality management system (see section 7) and shall observe the current state of science and technology during manufacture and testing.

"Zero-defect" means no incidents, no complaints and no defective products. This is taken into account in our supplier evaluation (see section 9). The supplier ensures compliance with IATF 16949. IATF 16949 is to this extent an integral part of this agreement.

5 Documentations / Access / Sub-supplier

The supplier shall prepare detailed records on the implementation of its quality management measures, in particular on initial sample documents, qualification/requalification certificates and associated samples, and shall keep them for at least 15 years after the period of use (see section 17).

Unless there is a written agreement on the acceptance of digital signatures between SMA and the supplier, the supplier is obliged to sign the documents in writing, if required.

Upon request, the supplier shall grant SMA full access to their documentation and provide requested samples. The supplier will also assist SMA in evaluating the documentation and samples. The documentation shall be made available to SMA upon request without delay, but no later than 1 work day after the request. This applies in particular to special characteristics within the meaning of Section 17, such as rhombuses or D characteristics (the corresponding marking can be found on the drawing or the accompanying documents), for which ongoing or point-by-point proof of statistical capability has been requested and confirmed.

The storage of all documents covered by these requirements shall be carried out in accordance with the legal regulations and requirements of the regulations (microfilming is permitted). The archiving period shall be at least 15 years after the useful life (according to VDA [translator's comment: VDA: German Association of the Automotive Industry] Volume 1 Documentation and Archiving - Guideline for the Documentation and Archiving of Quality Requirements and Quality Records), especially in the case of safety-critical characteristics within the meaning of section 17 (definition of characteristics according to the drawing and accompanying documents as well as documented in the Feasibility Study).

In the event of the initiation of insolvency proceedings of the supplier, SMA shall have a claim for surrender of all documents for documentation for SMA products, provided that the prescribed archiving period has not yet elapsed for these.


The supplier shall allow SMA to verify compliance with proper documentation and access all relevant documents at any time.

If the order placed with the supplier includes development tasks, the requirements will be defined in writing by the contractual partners, e.g. in the form of a specification sheet. The supplier is obliged to operate a functioning project management already in the planning phase of products, processes and other cross-divisional tasks. This shall be documented in quality management plans (product development process) and coordinated with SMA.

In case the development service also includes software components for the product, project management according to the requirements of Automotive SPICE (Software Process-Improvement and Capability Determination) in accordance with VDA is required to at least level 2 of the maturity dimension (all important work products, documents are available, all required processes are carried out and systematically planned and tracked). If the end customer has higher requirements, these shall be met in accordance with the associated specifications.

The Supplier shall grant SMA's representatives (e.g. auditors) and, if necessary, SMA's clients access to its operating sites and facilities by agreement, insofar as this is required to verify the existence and

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function of the supplier's quality management system and equipment (audit). SMA will announce the visit of its representatives in due time.

In the event of serious defects and incidents or if non-conformity of products and/or processes is suspected, SMA also reserves the right to visit at very short notice (within a few hours).

If the Supplier procures deliveries (input materials, software, services, production and/or testing equipment) from third parties (sub-suppliers) for the production or quality assurance of the products, the supplier shall ensure the quality of such deliveries by its own means and by contractually integrating the sub-supplier into the Supplier's quality management system, e.g. by requesting CQI (Continuous Quality Improvement) documents from sub-suppliers.

Upon request, the supplier shall inform SMA which sub-suppliers are used. SMA reserves the right to visit these sub-suppliers and, if necessary, to audit them, insofar as the verification of the existence and function of the sub-supplier's quality management system and/or operating resources requires this. SMA will announce the visit in due time. In the event of serious defects and incidents or if non-conformity of products or processes is suspected, SMA also reserves the right to visit at very short notice (within a few hours).

6 Changes and modifications

SMA shall inform the supplier in writing in due time if the requirements for the products change.

The supplier must request SMA's permission for product modifications and process changes, also with regard to input materials. For this purpose, SMA must be notified in writing of the modifications in due time and in full so that SMA can check them for their effect on the product and on intermediate and end products manufactured with it. Depending on these effects, SMA will decide whether an approval is necessary. Furthermore, the supplier shall coordinate sufficient lead times with SMA so that all necessary actions (in particular trial installation, sampling to SMA, sampling SMA to the OEMs, validation, long-term tests, approval of the OEMs) can be processed.


In case of modified products, the first three deliveries to each SMA plant installing the product must be clearly labelled with the reason for the modification and the service life of the product must be updated and enclosed with the delivery. The date of use and labeling must be provided to and coordinated with the respective SMA plant in good time beforehand.

If the Supplier discovers deviations in properties or reliability of the products compared to the agreed requirements during inspection, they shall notify SMA of this immediately (self-reporting). Corrective measures, such as improvement of manufacturing processes, materials, products, test procedures, test equipment, etc., shall be initiated and agreed upon by the supplier. Until these corrective measures take effect, SMA may demand special measures (such as higher test density, 100% tests, additional work/process steps) for a reasonable period of time. Any additional costs arising from this will be charged to the supplier. The supplier must apply for a separate deviation permit (DP) in accordance with section 24 at each of the SMA plants installing the product for the deviations found in the product or process.

7 Requirements for the quality and environmental management system

As a general rule, the supplier shall install a functioning quality management system in accordance with IATF 16949, have it certified by an IATF (International Automotive Task Force) certifying body and maintain it. Deviating from this, SMA may agree with the Supplier that certification according to ISO 9001 is sufficient. In this case, the supplier must meet the requirements of the automotive industry and

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provide a confirmed application for IATF16949 certification by certified body including a roadmap and planned certification date.

Supplier's compliance with IATF 16949 is an integral part of this agreement.

The supplier must develop an own QM-System and the QM-System of sub-suppliers with the goal to meet the requirements of IATF 16949 and to implement a certification according to IATF 16949.

For the products/processes/services delivered to SMA, the legal and regulatory requirements of the exporting country, the importing country and the countries of destination, if any, specified by SMA's client must be fulfilled and documented by the supplier.

Surface technology companies (in particular electroplating and painting plants) are required to be certified in accordance with DIN EN ISO 14001.

Processes that are subject to the requirements of the AIAG - CQI Standards (Automotive Industry Action Group - Continuous Quality Improvement) shall be documented as specified in the Feasibility Study and the corresponding self-assessments shall be sent to SMA's Quality Assurance Department in Backnang at Infolieferant@sma-metalltechnik.de every 12 months without being requested.

The supplier must be able to prove that all environmental regulations related to processes and products are established, their effects on the organization are known, and that the environmental regulations are permanently complied with.

The supplier shall send new or renewed certificates to the mail address Infolieferant@sma-metalltechnik.de without being requested to do so. Failure to provide this information as required will lead to downgrading in the supplier evaluation (see section 9).

Due to customer requirements, SMA demands the nomination of a **Product Safety Representative (PSR)** by the supplier. The supplier must send the Product Safety Officer's function/role, name, telephone/mobile phone number and e-mail address to SMA at: Infolieferant@sma-metalltechnik.de. SMA must be notified of any changes immediately and without being requested to do so.

8 Supplier approval

A new supplier or new production sites will only be approved after passing the technology audit conducted by SMA. Alternatively, SMA can decide that an approval is given on the basis of successfully executed OEM/First Tier process audit according to VDA 6.3, if this audit is not older than 6 months.

Manufacturing for SMA is only allowed by approved production sites.


9 Supplier rating

All deliveries are recorded and used for supplier rating according to an SMA internal system.

Quality, schedule and quantity compliance, logistics performance, certification status and the evaluation by the Purchasing Department are considered in the supplier rating.

In case of non-achievement of the "A" status, the supplier shall immediately take appropriate actions to regain the evaluation status "A".

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10 Process audit

SMA reserves the right to conduct process audits according to VDA 6.3 at the supplier's premises, if necessary at short notice or at regular intervals.

The supplier is obliged to implement the measures defined and agreed upon within the scope of a process audit and to prove their effectiveness.

In case the supplier has been declared a strategic supplier by the SMA Purchasing Department, the supplier will be audited at regular intervals at least every 3 years or after certain incidents (qualitative or logistical disruptions of the supply chain).

11 Feasibility Study

The Feasibility Study (FS) is performed by the supplier based on the VDA degree of maturity. The goal is a mutually signed Feasibility Study, which is a sourcing requirement. The supplier receives the Feasibility Study requirements from the respective SMA purchaser. The supplier is obliged to actively implement the requirements stated in the Feasibility Study and to meet the defined requirements.

12 Customer specific requirements

Customer specific requirements of SMA clients are communicated to the supplier by the respective Specialist Department at SMA and must be considered and adhered by the supplier. These requirements are documented and agreed upon in writing in the Feasibility Study.

13 Functional safety of software and components with integrated software

If safety-critical electronics and software are included in the scope of supply, the development must conform to the current "state of the art automotive engineering technology".

Safety relevant products and the relevant documents and records shall be clearly identified during the entire development and series production process.


The requirement of the required safety level (e.g. SIL, ASIL,...) will be provided by SMA in the relevant specification sheet (only if required). The safety concept with specifications for design and implementation must be coordinated by the supplier with SMA.

14 FMEA

A Failure Mode and Effects Analysis (FMEA) in accordance with VDA Volume 4 "Assuring Quality in the Process Environment" or in accordance with the AIAG_VDA_FMEA_Manual must always be completed in order to assess the risks that may arise as a result of possible errors.

The FMEA shall be maintained during the entire production period and updated in case of product modifications or process changes as well as in case of implemented measures due to based root

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cause analyses. Supplements and changes requested by SMA must be included in the FMEA by the supplier.

The FMEA shall be provided for inspection, in the context of Feasibility Studies, at visits, audits and full-run tests. With the product and process approval (initial sample inspection), the FMEA (cover sheet) shall be enclosed or a meaningful document of the FMEA shall be attached.

14.1 Product (Design FMEA)

A product FMEA shall be completed for all parts designed under the responsibility of the supplier.

14.2 Process FMEA

A process FMEA shall be completed for all production process steps. The results of the product FMEA and the special characteristics identified in the SMA must be considered in the process FMEA.

14.3 Risk assessment and risk handling with the necessary measures

The risks identified during the FMEA shall be assessed and prioritized according to VDA Volume 4 or AIAG_VDA_FMEA_manual.

For the implementation of the measures, deadlines and responsible persons shall be designated in such a way that the measures are completed before the start of series supply. In the case of necessary changes, see Chapter 6 „Changes and modifications“.

The measures defined in the FMEA shall be implemented into the production control and inspection plan. PMP actions and Best Practices shall be considered for lessons learned. The consistency of the special characteristics shall be guaranteed.

15 Proof of process reliability

In order to obtain information about the reliability and robustness of processes, process reliability shall be proved by the supplier in all phases of a project. Process reliability can be proved, for example, by process capability indicators, 100% inspection, Poka Yoke, first-part and last-part inspection for tool-bound dimensions, SPC, etc.


For variable/measurable characteristics, this can be done by using short-term process capability indicators. Specifications on the performance of process capability analyses in general are given in the publications VDA Vol. 2 "Assuring the Quality of Deliveries" and VDA Vol. 4 "Assuring Quality in the Process Landscape" from the series "Quality Management in the Automotive Industry". In case other regulations are to be applied, SMA will inform the Supplier in due time and in a suitable form.

15.1 Initial samples

Consistent with the methods and actions the supplier used during the initial sample inspection, the supplier guarantees during series.

For special characteristics, this is agreed in detail between the supplier and SMA within the scope of the Feasibility Study. Deviating customer specific requirements must be considered.

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If the process safety for special characteristics within the meaning of section 17 (safety critical (D), important (\geq)) is proved by means of proofs of capability; this shall be provided by means of a short-term test with a sample size of at least 50 parts per nest/cavity.

Minimum requirement: $Cmk \geq 1.67$

If a value deviating from this is to be applied (e.g. by contractual agreement with OEM), this will be agreed with the supplier on a case-by-case basis.

During sampling operations no machine readjustment, parameter changes or other interventions are permitted. If any significant change occurs, a restart of the process is required.

15.2 Safe Launch Plan

The objective of the Safe Launch Plan is to verify product and process capability and reliability of the production system by the supplier. During the ramp-up phase, the supplier installs additional tests on identified risk processes or increases the test frequency accordingly in coordination with SMA. The purpose of this is to identify all influencing parameters and to confirm that no defective products are manufactured in the process.

Deliveries of products within the Safe Launch Plan must be specially labelled and delivered with a separate inspection report (certified delivery).

Scope of characteristics and exit criteria will be defined within the Feasibility Study.

15.3 Series

For "special characteristics" (as defined on the drawing and/or in the applicable documents), the evidence of the process reliability as defined in the Feasibility Study needs to be proved.

In case the process reliability is based on the achievement of the process capability indicator Cpk, the minimum requirement for these features is:

$Cpk \geq 1.33$

In case a different value is to be applied (e.g. due to contractual agreements with the end customer), this will be agreed with the supplier in the Feasibility Study on a case-by-case basis.

For special processes with sliding averages, suitable replacement tests can be defined individually with SMA within Feasibility Study, for example " Cp value ≥ 2.0 and $Cpk \geq 1.00$ ".


In case the required process capability is not achieved, the supplier is obliged to immediately optimize the production process at the supplier's expense. Until then, a defective delivery shall be ruled out by other suitable measures (e.g. 100% inspection, Poka-Yoke).

In case a conventional proof of process reliability is not possible (such as for materials), another suitable action must be taken to rule out a defective delivery (e.g. factory test certificate according to DIN EN 10204).

As a general rule, for all processes with multiple molds in the tool, proof of capability must be provided separately for each tool mold. For tools exceeding 8 mold, depending on the complexity, tooling concept, maturation status, etc. of the part, an agreement on capability evaluation based on the "best" and "worst" molds can be made on a case-by-case basis.

In the case of tool adaptations or maintenance that may have an impact on the component, an internal initial sample inspection shall be completed.

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At the request of SMA, the supplier shall provide proof of compliance with the required values at any time by granting on-site inspection of the documentation for by sending the respective documents to SMA.

16 Product and process approval (sampling inspection)

The PPF procedure (VDA Volume 2) shall be implemented as mandatory for the scope of sampling inspection and the necessary documents. Which documents are to be used shall be clarified in consultation with SMA prior to completion. The latest revision level is applicable (VDA 2 or PPAP (Production Part Approval Process)). Outdated templates will not be accepted by SMA.

Depending on the internally selected submission level and any additional requirements that may be necessary, the supplier will be notified of the requirements for the sampling inspection by SMA in writing via the initial sample order and design drawing.

Any necessary changes shall be coordinated with the SMA quality planner prior to the sampling inspection.

The submission documents shall be sent in electronic form by e-mail to the contact person designated in the purchase order. The documents are to be assigned to the individual requirements. For change sampling or resubmission sampling regarding index level of a material number, the requirements can be submitted as follows:

- PO for initial sampling
- By request of quality planner (e.g. via e-mail)

SMA completes a full-run test, 2-day production according to the risk classification of the Feasibility Study at the supplier's site. Independent of SMA testing, the supplier shall always provide evidence of an internal full-run test.

A further item of the sampling inspection is the International Electronic Material Data System (IMDS) for ingredients in purchased parts. The supplier shall enter the corresponding information on ingredients of purchased parts into the IMDS already prior to delivery of the initial samples. The initial sample inspection report shall indicate the IMDS ident number already accepted by SMA.


For changes in the production process, the material, the sub-contractors and tools (also for spare parts), the production technology, production sites and packaging, the supplier is obliged to notify SMA in accordance with sections 6 and 8 of these QAA. SMA determines the implementation and advance quality planning scope of the initial sample inspection, except for set parts.

16.1 Initial samples

Initial samples are products and materials that have been manufactured completely with series production equipment and under series conditions. They are to be taken as a random sample from a representative production quantity under series conditions. The batch size is to be selected by considering the type of product; it can also be specified by SMA.

Samples that do not meet part requirements may only be delivered if SMA has approved a written deviation permit (DP) in accordance with section 24 is attached to the initial sample inspection report. These parts shall be marked according to the specification (see section 19).

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Expenses incurred by additional sampling work due to deviations will be borne by the supplier.

Incomplete initial sample documents are not accepted.

For tool with multiple cavities, the complete number of cavities shall be entered in the initial sample report and samples must be provided for each cavity. The parts are to be assigned to the respective test report. The same applies to the initial sample inspection of multiple punching tools and fixtures.

The initial sample delivery shall be clearly marked as "initial sample" on the packaging and on the delivery papers. The initial samples are to be delivered completely in accordance with the order in series packaging incl. series labeling and the specified number of pieces.

Return/reference samples of the initial sample parts shall be stored accordingly by the supplier during the documentation period (see section 5). In case of products with a limited shelf life, the supplier shall submit appropriate proposals to SMA.

16.2 Other samples

Other samples are products and materials that have not or not completely been manufactured under series conditions (including prototype parts). A measurement report is required for these samples, if necessary using forms specified by SMA's client. The scope of the measurements and the report shall be agreed between the supplier and the purchaser. A clear marking of the packaging and the delivery papers with the note „SAMPLE " and the SMA recipient shall be made.

16.3 Requalification

As required by IATF 16949, all products shall be subjected to full dimensional and functional testing in accordance with production control plans in accordance with applicable customer specifications for material and function. The results shall be available for customer reviews customer-specific requirements apply accordingly.

For new parts, the supplier shall coordinate the scope of testing and the interval with SMA as early as in the Feasibility Study and, if necessary, consider SMA's client requirements.


The supplier shall ensure the requirements for the requalification test and shall submit them to SMA upon request within 24 hours.

16.4 Technical requalification supplier

The technical requalification of suppliers is an essential part of ensuring product quality with the goal of further reducing supplier-related incidents and thus has a particular impact on further reduction of internal and external failure costs. For this purpose, the requalification characteristics agreed in the Feasibility Study are checked on site at the supplier's premises. Registration for the performance of this check on site at the supplier's premises is usually made no later than 5 working days before the scheduled date.

17 Parts subject to special obligation to provide evidence

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To meet the high legal and authoritative requirements (e.g. with respect to product liability) and customer requirements, special care is required in the definition and realization and the obligation to provide evidence for "special characteristics" (characteristics are defined in the drawing, applicable documents and in the Feasibility Study). This also applies to the entire supply chain up to the actual place of manufacture. Failure to comply with specified or agreed requirements can result in significant consequences, such as recalls, service actions, replacements, selling bans, loss of image and orders. It is essential to avoid that.

For characteristics and production processes marked with "D", process reliability shall be proved in a suitable form according to section 15. Complete proof of results is necessary.

All documents related to the product, such as FMEA, production control plan, production documents and internal/external shipping documents and others shall be clearly marked with a "D" or other internal safety designation.


Documentation shall provide clear evidence of:

- Determination of manufacturing specifications
- Execution of specified tests
- Set-up documentation or test values
- Test equipment calibration
- Clear batch traceability, where necessary individual tracing using serial numbers, test documentation, production data and material batches (purchase of production material requiring documentation only with acceptance test certificate)
- Type and detail of traceability agreed upon during advance quality planning
- Quality deviations incl. measures, limitation, error prevention programs

SMA reserves the right to verify compliance with correct documentation at any time and review all relevant documents.


In the event of the initiation of insolvency proceedings of the Supplier, SMA shall have a claim for surrender of all documents for documentation for SMA products, provided that the specified archiving period has not expired.

17.1 Labeling obligation

All deliveries of materials and parts with safety critical characteristics shall be clearly identified by the supplier. Each container and each pack (mesh box, pallet, carton, etc.) and each delivery bill must be marked **with a**  (see VDA recommendation 4902: fields 8 or 16) and the relevant batch number in addition to the standard labelling. Furthermore, each delivery bill must be clearly labeled with delivery number that shows the via which the batch number. Mixing of batches in one packaging unit is not permitted. In case of delivery of two or more different batches in one delivery, a separate delivery bill shall be enclosed for each batch.

Any sub-supplier shall be approved by the supplier and shall be obliged to follow the same procedure with respect to documentation.

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18 Directed parts

In case a supplier assembles components and must use parts from a sub-supplier specified by SMA, these are referred to as set parts. Even if SMA a direct parts sub-supplier, the supplier continues to be responsible for all contractual obligations and quality requirements of the parts towards the sub-supplier.

19 Packaging and identification

The products shall be stored at the supplier's premises in such a manner that they are sufficiently secured against loss/theft and that damage or changes to the material properties due to environmental influences are excluded. Unless otherwise specified by SMA, the Supplier shall prepare the required packaging and identification in accordance with the provisions of the SMA specification sheet. Damage to the products during transport or shipping must also be excluded.

The supplier shall identify the products in such a way that the product condition and the inspection condition can be identified unmistakably at any time, from incoming through shipping.

In the Logistics Department, the type of identification specified by SMA must be used. To identify modified parts, reworked parts or parts with a valid deviation permit, the supplier must additionally use the template "Information on part status" to clearly identify the shipment.

In the case of defective parts, the supplier must use appropriate markings (e.g. manufacturer's sign, date of manufacture, place of manufacture) which enable SMA to identify or verify parts which are also defective or may be defective. The Supplier shall immediately inform SMA about any deviations and changes from the packaging and identification requirements.

20 Contingency

In the event of tool damage and/or machine breakdowns, the supplier shall guarantee the availability of products for the client by taking appropriate actions (e.g. fast, contractually assured access to toolmakers and/or machine maintenance personnel of the respective manufacturers, safety stocks for materials). To avoid process breakdowns, the supplier must maintain preventative and anticipatory repairs / maintenance.


The necessary capacities are to be determined in the framework of the contract review and their provision is to be ensured at all times. Necessary redundancies are to be kept ready by the supplier. In the event of special machines/equipment being used, an emergency strategy must be developed and submitted to SMA within the framework of the initial sample phase without being requested to do so.

21 Incoming inspection

In accordance with the quality management system and the quality standard that SMA requires, the incoming goods inspection at SMA is to be reduced in order to avoid double checks.

SMA only verifies identity, quantity, transport damage and other obvious damage. Any further inspection by SMA or SMA's clients shall not constitute an acknowledgement of the conformity of the goods with the contract or a waiver of proper performance of the contract and shall not release the supplier from liability. Payment for the goods shall not be considered as a declaration of acceptance of the goods as being in compliance with the contract.

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22 Complaints

The supplier shall promptly respond to any complaints by SMA. The supplier immediately confirms receipt of a complaint in writing and issues a first report to SMA within 24 hours by means of an 8D report or statement (depending on the request) and immediate corrective actions. Unless otherwise agreed, the supplier immediately effects a replacement delivery free of defects within one working day. The follow-up deliveries must be clearly marked. Upon request, documents such as measurement reports, material certificates, etc. shall be provided to SMA directly within one working day.

In order to avoid production downtimes, SMA reserves the right, in coordination with the supplier, to execute rework/sorting on its own or to commission third parties to do so at the supplier's expense.

Within 5 calendar days the supplier receives a complaint, SMA shall receive the supplier's root cause and corrective actions. Failure to provide SMA with sufficient information on the root causes and corrective actions within the specified period will have a negative impact on the supplier rating. In case the results of the supplier's findings are not provided within five calendar days the supplier's parts will be deemed as defective.

The supplier shall submit a final 8D report with verified corrective actions within ten (10) calendar days after receiving a complaint.

22.1 8D procedure

For the purpose of problem solving, special importance is to be placed to the systematic processing using the 8D method. Here "Is/Is not Analysis", the cause-effect diagram (Ishikawa) and the "5-Why Method" must be applied. Technical solutions should be pursued. The complete documentation of the problem solving process shall be provided with the 8 D report to SMA upon request.

These are basic problem solving requirements, which prevent repeated issues in the same or similar way. Preventive methods and tools, such as FMEA's, lessons learned of preventive quality management are to be used. The results are also to be applied to other products and processes.

The level of co-operation between the supplier and SMA and the quality of the problem-solving process may influence the supplier rating (see section 9).


22.2 Warranty analysis

A field claim exists if defective parts have already been installed in a vehicle that has already left the final place of manufacture. A field claim exists even if the vehicle has already been transferred and/or registered to the end customer, or if there is only a repair without replacement of parts.

The supplier must implement a process for the systematic analysis of field returned parts and utilize the same process consistently throughout the entire supply chain. This process must meet the requirements of the applicable VDA and/or AIAG standard. SMA reserves the right to check the effectiveness of this process in the framework of a warranty analysis audit. In case deviations are found which call the supplier's ability to analyze into question, SMA will not recognize the findings and the supplier shall recognize the previous claimed parts as defective until the ability to analyze field returned parts is given.

In addition the supplier shall bear any additional verifiable expenses incurred by SMA that result from field claims (in particular audits, travel times, additional analyses and inspections).

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The supplier shall notify SMA immediately of any problems that may affect SMA's products during the warranty analysis.

23 Escalation process CSL/Q discussion

In case problems accumulate, SMA will use an escalation process. SMA will apply the Controlled Shipping Level (CSL) process and conduct TOP-Q discussions to escalate issues.

SMA reserves the right under the escalation program to convene a CSL program in the event of repeat defects, escalated product issues, or escalated supplier development issues. The following levels of the CSL program are possible:

CSL1:

The supplier inspects 100% of the required characteristics over a certain period of time or for a required quantity or until the actions to eliminate the defects are effective. The processing shall be executed during the complaint processing in the plant. Here is decided on the CSL1 status. Results in deduction of 11 points in the supplier rating for the duration of the CSL1 program (escalation level 1).

CSL2:

An independent third party inspects the required characteristics over a certain period of time or for a required quantity or until the actions to eliminate the defects are effective. The effectiveness of the actions must be confirmed by SMA. Results in deduction of 21 points in the supplier rating for the duration of the CSL2 program (escalation level 2).

CSL3:

In addition to the actions of CSL2, a supplier development program is executed by an independent third party. The areas in which supplier development takes place are defined in the "Kick Off Meeting". The effectiveness of the actions (of the supplier development program) must be confirmed by SMA. Results in deduction of 21 points in the supplier rating for the duration of the CSL3 program (escalation level 2).

Q Discussion


In case of e.g. unsuccessful CSL programs, escalated particular issues (in series production as well as in the project phase), permanently insufficient performance, Q discussions with the supplier take place. Here, the supplier's executive management is invited to a Q discussion, possibly at short notice. For this discussion, SMA expects a meaningful action plan that includes both the short-term immediate actions as well as the planned actions for sustainable elimination of defects.

24 Deviation permit (AWE)

The Supplier shall inform SMA immediately in case the supplier recognizes that the products deviate from the requirements to be fulfilled. The contact persons for series parts are the QA specialists responsible for purchased parts in the receiving plant or the respective quality planner prior to the approval of the initial sample in accordance with PPF/PPAP (Production Process and Product Release/Production Part Approval Process).

Delivery of parts deviating from the specifications may only be made after the AWE has been issued and approved for the respective SMA plant to be supplied.

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An action plan for the elimination of the defects including the fastest possible deadline and completion date must also be submitted. The supplier shall clearly identify all carriers of the deliveries containing deviating parts for the entire duration of the deviation (document "Information on Partial Status").

25 Miscellaneous

Any amendments and supplements to the terms of this agreement must be agreed to in writing for contractual obligation. This formal requirement may only be waived by written agreement. The written form referred to in sentence 1 is granted by facsimile, but not by e-mail.

The German version of this agreement is the legally valid version. Versions in other languages are translations of the German version.

In case of references to further documents/literature, the documents mentioned are valid in the respective amended version.

26 International standards


The supplier shall comply with all national/international standards concerning their contractual products. We refer for example to the following homepages:

www.vda.de	VDA Information (DE/EN)
www.vda-qmc.de	VDA QMC Information (EN)
www.iatfglobaloversight.org	IATF (customer specific requirements) (EN)
www.aiag.org	AIAG (ISO/TS 16949) (EN)
www.fiev.fr	FIEV (French automotive supplier) (F)
www.anfia.it	ANFIA (Italian automotive supplier) (IT/EN)
www.smmmt.co.uk	SMMT (Great Britain) (EN)
www.jedec.com	JEDEC (Semiconductor Industry) (EN)
www.ipc.org	IPC (Electronics Industries) (EN)
www.mdssystem.com	International Material Data System (DE/EN)
www.emas-logo.de	EMAS (Int. environmental management) (DE)

27 Confidentiality

The contractual partners are mutually obliged to maintain secrecy with regard to such facts, documents and knowledge which come to their knowledge in the course of the implementation of this agreement and which concern the business of the contractual partner, insofar as the latter designates the respective information as requiring secrecy or has an obvious interest in its secrecy. Examples are data


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from Q-planning such as FMEA or process data. The obligation to maintain confidentiality does not apply insofar as the respective fact demonstrably:

- is state of the art accessible to the general public or becomes so without any action on the part of the contractual partner receiving this information, or
- was already known to the receiving contractual partner or is made known to a third party authorized to disclose it, or
- must be disclosed due to mandatory statutory provisions or sovereign orders.

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28 Severability section

In case individual provisions of this contract are ineffective or unenforceable or become ineffective or unenforceable after conclusion of the contract, the effectiveness of the remaining provisions of the contract shall not be affected thereby. The ineffective or unenforceable provision shall be replaced by an effective and enforceable provision whose effects come as close as possible to the economic objective pursued by the contracting parties with the ineffective or unenforceable provision. The above provisions shall apply mutatis mutandis in the event that the contract proves to be incomplete. Section 139 of the German Civil Code shall be deemed excluded."

Hereby, both contracting parties acknowledge the contents of the SMA Quality Agreement for Suppliers (as of 04.06.2020) as the basis for further co-operation.

Backnang,

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SMA Metalltechnik

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(Place)

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Supplier

29 Revision history

Revision history	
04.June.2020	Warranty supplemented (items 22.3 to 22.7)
15.January.2018	Creation of the document
12.February.2018	Item 27 Confidentiality added
02.October.2020	Revision

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