

Quality Assurance Agreement (QAA)

for Suppliers of

Raw Material – Automotive Applications

of

OTTO FUCHS KG

Derschlager Straße 26
58540 Meinerzhagen

- referred to as Buyer -

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1. Preamble

This Quality Assurance Agreement (QAA) contains framework terms and conditions between Buyer and Supplier required to achieve the pursued zero defect objective.

This QAA specifies minimum demands on the Supplier's management system for the metal formats from which the products are manufactured for customers in the automotive industry (OEM, if applicable) at the Buyer's premises. The QAA is an essential component of the Terms and Conditions of Purchase and/or the contract between the Buyer and the Supplier.

Full acceptance of this QAA is a prerequisite to supplying any metal formats for automotive applications to the Buyer.

2. Supplier's Responsibility

The Supplier is obliged to comply with the statutory and regulatory requirements that affect its business processes.

Continuous improvement of their processes, as well as reliability in terms of delivery schedules and quantities represent integral parts of the Supplier's quality policy.

Subcontracting to third parties is not permitted without explicit prior approval of the Buyer.

The Supplier commits their subcontractors to also comply with this QAA.

3. Supplier's Management System

3.1 Quality Management

The Supplier commits themselves to permanently deploying an effective quality management system that has been put in place and certified according to the current version of IATF 16949, VDA 6.1, or at least according to ISO 9001 in the valid edition on their structure and size of company. The requirements of this international specification, extended by the requirements of this QAA, must be implemented in the quality management system (QMS) of the supplier.

The contents of this QAA reflect the requirements of the Buyer, IATF 16949 and the customer-specific additional requirements of the Buyers customers (CSR) for the quality management system of the suppliers (see Annex 1 for information).

The Supplier is obliged to support the awareness of his employees regarding product conformity, product safety and ethical behaviour. The necessary qualifications of the test and inspection personnel must be maintained through regular training measures. The necessary work instructions

and specification documents must be available to the employees at the workplace. The Supplier has to appoint a product safety representative (PSB) and to qualify him accordingly.

The Supplier regularly examines the effectiveness of their manufacturing process by performing internal audits in accordance with VDA 6.3 (process audit), VDA 6.5 (product audit) and applicable customer-specific requirements respectively (see appendix 1).

The Buyer reserves the right to demand evidence of the audits carried out.

3.2 Management of Subcontractors

The Supplier is obliged to maintain a documented list of the subcontractors he has qualified.

The Supplier is responsible for passing on any information required along the supply chain from Buyer to Subcontractor.

Upon demand, the Supplier is to provide the Buyer with documented evidence of effectiveness checks of Subcontractors' quality management systems.

The Supplier is obliged to enable the Buyer to audit the subcontractor concerned under the above mentioned conditions and to contractually agree this with his subcontractor.

The Supplier shall oblige its subcontractors to pursue the objectives in order to achieve the quality of the products agreed with the Buyer.

3.3 Sustainability, Environment Protection, Energy Use and Work Place Safety

The supplier is obliged to comply with his national and regional laws regarding environmental protection, energy use and occupational safety. Workplaces and processes are to be designed such that inadmissible effects on employees and products are impossible.

The supplier must comply with the "Supplier Code of Conduct of OTTO FUCHS KG", which can be found in the Supplier Portal of the Buyer at www.otto-fuchs.com.

The applicable legal and official requirements of the country of export and import for the delivered products must be fulfilled. The automobile products manufactured by the purchaser from the supplier's metal formats can be used worldwide and must comply with the statutory, official or other legal requirements applicable worldwide

The manufacturing of products for the Buyer must meet the specified quality, environmental and safety criteria; the equipment and machines required for this must be used safely for their intended purpose. The instructions and provisions required for this must be available to employees at the workplace.

The implementation and certification of the environmental/energy/occupational health and safety management systems must be taken into account in the Supplier's corporate planning.

4. Supplier Management of the Buyer

4.1 Supplier Qualification / Supplier Approval

The Buyer maintains an overview of the approved suppliers who have been qualified for the raw material automotive applications in accordance with the Buyer's approval procedure.

4.2 Supplier Audits

The Supplier grants the Buyer, customers of the Buyer as well as responsible authorities, the right of examining their quality management system and processes at their production sites by performing audits during their working hours. For this purpose, auditors are granted free access to those sites of the Supplier that are involved in planning, development and manufacturing of the metal formats to be supplied to the Buyer. The Buyer shall accept reasonable restrictions of this right in order for the Supplier to safeguard their corporate secrets.

At such quality audits, the Supplier will provide all necessary documents and information from all relevant levels of the Supplier's supply chain according to the information requested by the Buyer. The result and the agreed improvement measures will be documented in the audit report through the buyer.

The Supplier is responsible for implementing the audit measures and providing regular information on the processing status to the Buyer.

Reasons for supplier audits may be the following:

- Supplier approval procedure
- Awarding new contracts (new products)
- Supplier development
- Launch of production (approval of serial production)
- Changes to manufacturing process or test procedure
- Changes in equipment or production location/relocation
- Regular supplier surveillance
- Ongoing escalation procedure on the part of the Buyer / Buyer's customer (s. Chap. 13)
- Follow-up audit caused by negative audit result (C-rating)

4.2.1 Process Audits

The Process audits will be performed in accordance with the VDA 6.3 guideline; process audits are extended to include customer-specific requirements if necessary and carried out by VDA 6.3 qualified process auditors of the Buyer.

4.2.2 Quality Management System Audits

The Buyer declares his support for the continuous further development of the QMS of his Supplier on the basis of the IATF 16949 and the customer-specific requirements within the framework of the planned system audits. The aim is to achieve the IATF 16949 certificate by the Supplier.

The information and specifications required for this purpose are passed on by the Buyer to the Supplier.

System audits at the Supplier's premises are carried out by qualified auditors of the Buyer. Fulfilment of the MAQMSR requirements (Minimum Automotive Quality System Requirements for Sub-Tier Suppliers) is the first step towards the IATF 16949 certificate. MAQMSR available for download under:

<http://www.iatfglobaloversight.org/wp/wp-content/uploads/2016/12/Minimum-Automotive-Quality-Management-System-Requirements-for-Sub-tier-suppliers-2ndEd-rev2.pdf>

4.3 Supplier Evaluation and Rating

The rating of the Supplier (A, B or C acc. to VDA 6) by the Buyer is regularly determined on the basis of defined evaluation criteria: Quality, logistics (faithfulness to delivery dates and quantities), purchasing and sustainability (environmental behaviour and legal compliance).

The quality of the Supplier's products is continuously evaluated by the Buyer and constitutes a quality indicator. If necessary, this key figure can be negatively influenced by the result of the supplier audit, certification status or by an escalation process initiated by the Buyer. The Supplier will be informed regularly about the result of the rating by the Buyer in writing.

4.4 Supplier Development

If the Buyer identifies problems in supplier performance based on supplier monitoring, he shall initiate appropriate improvement measures at the Supplier.

Buyer shall pursue the possibilities of continuous improvement of the Supplier.

The supplier audit is a form of supplier development; the exchange of information and experience between the Buyer and the Supplier also serves this purpose.

5. Risk Management / Contingency Plan

The Supplier must ensure that all potential incidents, which could negatively affect the supplier's ability to deliver within the supply and process chain, are identified, evaluated and controlled by the risk management system.

Possible incidents that could cause an emergency case are e.g. machine defect, loss of personnel, loss of subcontractor or power failure.

The appropriate preventive measures should be fixed in a contingency plan. The effectiveness of the contingency plan must be checked annually by the Supplier and must be submitted to the Buyer on request.

The Supplier must be adequately insured for the damage caused by his inability to deliver to the Buyer and his customers, as well as for product liability cases.

6. Document Management and Data Protection

The quality management system of the Supplier is required to contain procedures for control of quality requirements documents as well as for archiving of quality records for evaluation (s. Chap. 6.2). These must be able to be assigned to the products and processes.

6.1 Order Documents

The Supplier shall be responsible for executing the order in compliance with the specifications according to the order documents of the Buyer.

The Supplier is obliged to examine the documents in terms of completeness and consistency regarding their production process and, if required, to request further information from the Buyer in order to ensure correct execution of the order.

The Buyer's requirements for the metal formats to be supplied are specified in the order and in the OTTO FUCHS material standard (OFWN).

Compliance with these requirements must be confirmed in writing by the Supplier. If one of the requirement documents listed in the purchase order or the customer-specific QMS requirements relevant to the order (CSR - see Appendix 1) are not available to the Supplier, these must be requested by the Buyer. The revision status of the documents listed in the order (e. g. technical drawing, specification) applies to the respective order of the Buyer.

6.2 Data and Document Archiving

The specifications regarding archiving of process data, quality requirements and quality records can be found in the legal, customer and industry-specific regulations (see VDA Volume 1). A process for handling special features must be implemented (see VDA Standard "Product Development - Process Description Special Characteristics BM").

Documents with reference to special characteristics shall be archived for a period of at least 15 years after the end of series production.

This also includes the records and reports for the annual self-audit with regard to the critical product/process characteristics (e.g. VW Group D/TLD self-audit; this audit question list must be requested from the Buyer if needed). Upon request of the Buyer, the Supplier is to allow access to these audit reports by the Buyer.

6.3 Data Protection

The confidentiality of the information from the Buyer or the Buyer's customer shall be confirmed by the Supplier in signing the confidentiality agreement (see download in the Buyer's Supplier Portal) is a prerequisite for the business relationship between the Buyer and the Supplier.

Information, documents and other information may only be passed on to third parties with prior written approval of the Buyer.

7. Quality and Test Planning

7.1 Feasibility Analysis/ Risk Analysis/ FMEA

An analysis of the technical feasibility including the evaluation of capacity planning by the Supplier must be carried out within the scope of the enquiry or in the case of the Buyer's first order in accordance with a new or changed specification (OFWN).

The Supplier shall apply adequate preventive methods of quality planning and fault prevention („Core tools“- FMEA, MSA, SPC, PPF/PPAP, APQP), if relevant. The VDA standards VDA 2, VDA 4 and VDA 5 provide a guideline.

A procedure for process FMEA must be defined in writing at the Supplier's premises and must correspond to the AIAG- or VDA method. If applicable, the risks of alternative production steps must also be assessed in the process FMEA.

Handling of characteristics with special requirements for documentation and archiving (see OFWN) specified by the Buyer must be fulfilled by the Supplier (in accordance with VDA 1).

These special characteristics must be supplemented by the critical parameters from the supplier's manufacturing process.

All special characteristics must be taken into account in the Supplier's specification documents, e.g. in the production control or inspection plan and in the P-FMEA.

The archiving periods for the documents belonging to the special characteristics are to be adhered to in accordance with Chapter 6.2.

7.2 Production Control Plan/Inspection Planning/ Documentation of Test Results

Unless otherwise requested by the Buyer, the Supplier shall establish a production control plan (PCP) and an inspection plan (test criteria, test frequencies, measuring points) on its own responsibility in order to meet the agreed targets and specifications. He is responsible for testing the metal formats according to the agreed specifications (OFWNs).

If applicable, a PCP and a test plan for the alternative production routes including alternative control and monitoring methods and work instructions must also be defined in writing.

The supplier must systematically keep and retain evaluable records of the results of quality monitoring, quality inspection and the measures taken to eliminate defects.

The inspection certificate type 3.1 according to EN 10204 for the material (certificate contents see OFWN) must be made available to the customer in electronic form if possible before the actual material is delivered (e-mail box SupplierCertificate@otto-fuchs.com).

7.3 Test and Measuring Equipment

The Supplier must administrate and monitor any testing and measuring equipment.

This includes the regular calibration of testing and measuring equipment and the statistical determination of the measurement uncertainty of the measuring systems (capability, see VDA 5 guideline), to which reference is made in the production control plan.

If test and measuring equipment is provided to the Supplier by the Buyer or the Buyer's customer, it must also be included in the Supplier's test and measuring equipment management system.

7.4 Organisational Knowledge / CIP

The Supplier defines continuous improvement as a holistic approach to its quality management system. The experience summarized from previous projects and the analysis of deviations is to be used to build up knowledge management (e. g. lessons learned). As part of continuous quality improvement, the Supplier must monitor, analyse and reduce the scrap rate and rework rates by means of appropriate measures.

8. Maintenance

In order to minimize the downtimes of machines, equipment and tools, the Supplier must implement suitable methods, objectives and indicators for preventive and predictive maintenance.

9. Product and Process Approval Procedure (PPAP)

9.1 General

Prior to the start of series production, the process and product approval procedure (first sampling or material qualification) must be carried out by the Supplier.

The Buyer defines the requirements for material qualification and sampling documents (in accordance with VDA 2 guidelines).

Only after Buyer's approval on the basis of the qualification samples and documents has been granted, series production is released.

9.2 Process Approval at Suppliers'

With an internal approval of process the Supplier proves they are capable of producing products of required quality and quantity in a controlled and capable process.

The process approval can be carried out at the Supplier's production site with the participation of the Buyer.

9.3 Re-Qualification Inspection

The requalification test (product/ process) by the Supplier must be defined in the production control plan and must be carried out at least once a year.

In order to ensure and to retain the material and component properties, the Supplier is obliged to monitor the following special characteristics and to provide the corresponding data in accordance with VDA 1:

- Chemical analysis of the casting charge
- Homogenization parameters
- US- test results of the bars or billets according to OFWN

The measured values / test results have to be analyzed and evaluated at least once a year (failure frequency, fault cause, improvement measures).

Upon request, re-qualification documents are to be submitted to the Buyer within two working days.

10. Marking, Traceability, Packaging, Storage

The production flow and the procedure for handling the products must be defined in such a way that quality impairments and damage are avoided. This applies in particular to transport, storage, packaging, preservation and dispatch. The marking of the material must correspond to the technical order specifications of the Buyer (OFWN).

In order to ensure traceability the Supplier shall implement an identification system that fulfills the Buyer's requirements for metal formats as ordered. Traceability of process and product data of a production batch up to the primary materials used is to be ensured.

Storage conditions of products at the Supplier's site are to be such that loss, theft, damage and change of material properties caused by environmental impact are impossible.

Special packaging regulations of the Buyer are to be observed (s. OFWN).

11. Serial Production / Complaints

The Supplier is obliged to deploy steering actions appropriate for monitoring of serial production. In case of process disruptions or quality defects at the Supplier, root causes are to be analyzed, improvement measures are to be initiated and their effectiveness is to be verified.

With the delivery of the products to the Buyer, the Supplier confirms compliance with all specifications for the product ordered.

Should, in exceptional cases, products have been produced for the Buyer that do not meet specifications, the Supplier is obliged to issue a deviation request and to obtain a special release in writing by the Buyer before the material is delivered and enclose it with the type 3.1 inspection certificate in accordance with EN 10204 for the delivered material.

The Buyer is to be informed without delay about deviations in writing that the Supplier detected only after delivery.

The Buyer shall inspect the deliveries received from the Supplier upon receipt of the goods for compliance with the quantity and identity, externally recognizable transport and packaging damage as well as the associated delivery documentation.

The Supplier shall be notified immediately of any complaints resulting from this inspection. In addition, the Buyer shall inspect the goods delivered by the Supplier in the course of the production process and inform the Supplier of defects detected in writing by means of a Complaint Report (8D report). The supplier must report the information on the immediate measures taken regarding the complaint to the Buyer within 24 hours.

If the production of the Buyer (and the Buyer's customer respectively) is threatened to stand still as a result of faulty deliveries, the Supplier is to take remedial action promptly. If the supplier is not in a position to remedy the situation within a suitable time frame himself, the Buyer – upon written consent and at the expense of the Supplier – is permitted to take the required actions (e.g. sorting, reworking, materials testing) respectively.

The direct and indirect expenses incurred by the Buyer or his customer in the event of justified complaints and evidently caused by the Supplier shall be borne by the Supplier in accordance with prior agreement.

For each complaint, the Buyer shall charge a handling fee of 500.00 €. This is a minimum handling fee which serves to cover the administrative expenses of the customer in relation to the complaint and the Buyer reserves the right to charge the Supplier for the actual expenses which have traceable been incurred in the course of processing the complaint and which exceed the minimum handling fee.

12. Information Obligation

The Supplier shall be obliged to inform the Buyer about organizational changes which have an influence on his ability to deliver (e. g. sale, takeover, management change, personnel change in key positions).

All certificates related to management systems and customer approvals of the Supplier must be made available to the Buyer in a current version. Changes in the approval or certification status should be notified to the Buyer without delay.

If the Supplier receives a special customer status from the Buyer's customer (OEM) or loses the QMS certificate (IATF 16949, VDA 6.1 or ISO 9001), the Buyer must be informed immediately.

In case it becomes noticeable that agreements made e.g. on quality characteristics, schedules, delivery volumes cannot be fulfilled, or in case the Supplier detects a decline in quality, the Supplier is obliged to inform the Buyer thereof as well as about detailed circumstances promptly and to initiate corrective actions. The Supplier is obliged to disclose respective process documentation and manufacturing data.

The Supplier shall inform the Buyer timeously before any changes that are being planned for production processes, testing procedures and any change of production location that may effect the product quality. The Buyer shall then decide whether the changes planned require new sampling.

Any changes to the product and production process are to be documented in a product life cycle (change history) by the Supplier.

13. Escalation Procedure

With serious deviations from quality requirements the Buyer reserves the right to initiate an escalation procedure with the Supplier.

Triggers for initiating an escalation procedure may e.g. be the following:

- repeated faulty deliveries despite completed problem solving (8D)
- repeated disruptions of Buyer's production caused by faulty deliveries
- repeated/ critical complaints by customers of Buyer, caused by faults of Supplier
- field failures and recall actions respectively, by customers of Buyer, caused by faults of Supplier
- insufficient complaint management of Supplier
- Long-term insufficient adherence to delivery dates or quantities
- impending stoppages of Buyer's production and their customers' production respectively, caused by faults of Supplier
- critical action out of supplier audit not implemented
- unsatisfactory project management of supplier
- special status of the supplier assigned by the buyer's customer (e.g. controlled shipping level 1-2-3; C category, etc.)
- loss of supplier's QMS certificate (ISO 9001, IATF 16949, VDA 6.1)

The Buyer has implemented a three-stage escalation procedure. By means of a structured escalation procedure with suppliers, a smooth run of production as well as project shall be ensured; arising problems shall be solved sustainably.

Escalation Stage 1:

In the first escalation stage (problem solution by supplier is not successful) the supplier is invited to an interview with the customer, during which the problem is discussed and remedial measures are scheduled.

Escalation Stage 2:

Escalation to stage 2 (outside assistance required for solving of problem at Supplier's) follows in case result of stage 1 is unsatisfactory.

Escalation stage 2 provides for a root cause analysis that may take place on-site at the Supplier's, or at the Buyer's facility. This analysis may be performed by the Buyer as a process audit. The action plan agreed is to be executed by the Supplier in the stipulated period.

Escalation Stage 3:

An unsatisfactory result to escalation stage 2 leads to the initiating of stage 3 (Supplier is not suitable) or even to removing the Supplier as a supplier to the buyer and their customers.

The Buyer's customer is included in the escalation level 3, if it is a supplier specified by the Buyer's customer or if there is a risk for the Buyer's customer.

De-escalation:

In the case where effectiveness evaluation at the respective escalation stages shows positive results, the Supplier shall be notified of the lifting of escalation procedure (de-escalation). The de-escalation procedure shall be dealt with step by step.

14. Warranty and Liability

This quality assurance agreement does not limit the Supplier's obligations regarding warranty and liability resulting from the supply contract and legal regulations.

15. Additional Regulations

The Buyer has published the documents relevant to suppliers in its supplier portal at www.otto-fuchs.com. The supplier is obliged to implement the current status of the requirements. Unless otherwise specified in this quality assurance agreement or elsewhere, the Buyer's general terms and conditions of purchase apply.

The quality assurance agreement shall be valid until replaced by a new revision.

The up-to-date issue of the QAA incl. Appendix 1 (CSR) is to be found on the supplier portal of the Buyer at www.otto-fuchs.com.

Meinerzhagen, _____

OTTO FUCHS KG
-Buyer-

Place, Date

- Supplier-

ppa J. Müller
Head of Metal Purchasing
OTTO FUCHS

Name, Position, Stamp

Appendix 1: Customer Specific Requirements (CSR) on the QMS

Car manufacturer (Customer of Buyer)	Customer-specific Requirements (CSR)
VW/ Bentley	IATF 16949 CSR's of VW Group Formel Q-Concrete
	Formel Q- Capability
	Formel Q- New Part
Audi	Quality Specification Audi LAH 893 010
Porsche	Quality Management Agreements between Porsche AG and their suppliers
Daimler	Customer specific requirements of DAG MB Special Terms
BMW (Rolls Royce)	BMW GROUP Customer-specific requirements in addition to IATF 16949:2016- Customer Specific Requirements GS 90018-1, GS 90018-2 Requalification of product and process at suppliers
ZF/ THK	QD83 Global Supplier Quality Directive Global Supplier Quality Policy
Robert Bosch	Quality Assurance Requirement Purchasing – Quality Management (Requirements from the Internet portal)
Continental	GQA- General Quality Agreement General Terms and Conditions of Purchase of Continental AG and ContiTech AG and their group companies
Renault	RENAULT GROUPE Customer-Specific Requirements for use with IATF 16949
Getrag Ford Transmissions	GCG 904404 Corporate Policy Sustainability Directive

Revision history:

Rev.2 (March 2019): References to ISO/TS 16949 removed; Section: Sec.3.3 - worldwide use of automotive products added; 6.2- Reference to VDA volume "special characteristics" updated; 13- Insufficient adherence to delivery date or quantity added as reason for escalation; Annex 1- Issue status of CSRs removed

Rev.1 (July 2018): QA "Requirements" replaced by QA "Agreement"; Annex 1- CSR updated; Chapters 1, 2, 3.1- Text restated without content changes; 3.2- Overview of subcontractors added; 3.3- Sustainability, Supplier Code of Conduct and the commitment with fulfilling of relevant worldwide legal requirements added; 4.2.1 and 4.2.2 added; 4.3- Evaluation criteria newly defined; 4.4.-Text restated without content changes; 5.- Annual update of the emergency plan added; 6.1- Heading changed and reference to the requirement documents added; 6.2- Heading changed and process data added; 6.3- Text changed without content changes; 7.1- Feasibility analysis and requirements regarding alternative production steps added; requirements for special features extended; 7.2- Documentation of test results added; 7.3- VDA 5 added; 7.4 and 8. -Text restated without changes of content; 9.1- VDA 2 and release by customer added; 11.- Two working days replaced by 24 hours for immediate measures and complaint costs described; 12. - Text extended (1. paragraph); 15. - Reference to supplier portal added.

Rev.0 (Jan. 2017): First edition