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Supplier Quality Manual

"SQM"

Quality assurance of purchased parts in the Kiekert Group

Quality throughout the supply chain is becoming increasingly important and is therefore an important key to KIEKERT's economic success.

This SUPPLIER Quality Manual (hereinafter referred to as "SQM") applies worldwide to all SUPPLIERS of production materials and components as well for third-party services apply to our products and to SUPPLIERS of raw materials and supplies, which are included in our products.
Prototypes, equipment materials, supplies (if not specified in KIEKERT drawings), services as well as testing and laboratory facilities are exempted and can be fulfilled by separate agreements, for example based on the SQM.
For convenience, the terms KIEKERT and SUPPLIER are used below.
This SQM explains the quality requirements of KIEKERT as well as any subsidiaries and other affiliated companies towards the SUPPLIERS. It serves to ensure a coordinated quality management with the aim of ensuring the quality of the common products and the satisfaction of customers of KIEKERT.

The present SQM is a binding document and part of all contractual agreements.
Subsequent changes become binding, as soon as KIEKERT has communicated them in text form to the SUPPLIER.

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1. General Terms

1.1. Purpose of this SQM

(IATF 16949: Preface Purpose)

KIEKERT, as a supplier to the automotive industry, produces high-quality products. The SQM secures the procurement and production of high-value, high-quality products through suitable, technically recognized and economically justifiable measures.

The purpose of this Manual is to help minimize quality issues and to ensure smooth operations between KIEKERT and the SUPPLIER, as well as to minimize costs, by describing the SUPPLIER's quality management system’s minimum requirements.

The SQM describes the technical and organizational framework conditions and processes that are necessary to achieve the desired quality goal.

All processes must be focused on "continuous improvement" and the goal "zero defects".

The quality produced by the SUPPLIER has a significant influence on internal processes of KIEKERT and thus on the quality of end products. Strict compliance with this agreement is to be ensured by the SUPPLIER, including product liability and warranty obligations.

Heiligenhaus, September 2026

Andreas Lang
Director Global Quality

Robert Hanuš
Global Supplier Quality Manager

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1.2. Validity of the Manual

(IATF 16949: Chapter 1.1, 4.3.2)

The present SQM applies to all contracts between KIEKERT and its SUPPLIERS.

Deviations from this Manual requested by the SUPPLIER must be agreed with KIEKERT and confirmed in writing by KIEKERT.

The present Manual does not replace the - if applicable - requirements according to IATF 16949, DIN EN ISO 9001, DIN EN ISO 14001, sets of rules of the automobile industry in the valid version (e.g. VDA and AIAG) as well as customer standards, but contains the minimum requirements of KIEKERT only.

In addition to the present SQM, the GENERAL TERMS AND CONDITIONS OF PURCHASE of KIEKERT (current status see: https://www.kiekert.com/downloadcenter/) apply. The application of "General Terms and Conditions" of the SUPPLIER is excluded.

Customer-specific and KIEKERT requirements must be assessed and included in the scope of the organization's quality management system

1.3. Sustainability and Work Ethics

(IATF 16949: Chapter 5.1.1.1)

At KIEKERT, sustainability is a core principle that guides our actions and decisions. KIEKERT expects its SUPPLIER to have appropriate processes and regulations for sustainability in place and to implement KIEKERT requirements such as the Code of Conduct, a certified environmental management system and relevant material compliance issues. Details are described in applicable documents (Code of Conduct, Conflict Free Smelters, etc.). The SUPPLIER must additional ensure these requirements in its supply chain.

The SUPPLIER shall take all necessary measures to comply with the relevant laws and regulations of the countries in which it delivers plants to KIEKERT.

1.4. Confidentiality

(IATF 16949: Chapter 8.1.2)

KIEKERT concludes a separate Non-Disclosure Agreement (NDA) with the SUPPLIERS, which regulates the secrecy between KIEKERT and the SUPPLIER.

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1.5. 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 shall apply.

Otherwise, the regulations are valid in KIEKERT's „General Terms of Purchase“ in its update version.

The SUPPLIER grants KIEKERT to concede rights resulting from warranty cases even if, despite a constricted goods-inward inspection under the terms of chapter 4.1, KIEKERT detects defects during or after assembly. After the discovery of defects, however, the SUPPLIER receives immediate information and is requested to limit the damage. The SUPPLIER is expressly advised that it is required to clarify the above arrangements with its liability insurer to ensure that it is nevertheless able to obtain the required product liability insurance, including the envisaged recall cost insurance. The minimum cover in case of damage must correspond to current business conditions (see FRM-GL-LC-014 Proof of Insurance Supplier).

1.6. Risk Management/ Contingency Planning

(IATF 16949: Chapter 6.1.2.3)

The SUPPLIER must ensure that all potential incidents that could adversely affect its ability to deliver within the supply and process chain are identified and evaluated on its own responsibility.

The contingency plans must be reviewed annually for effectiveness, adjusted if necessary, and must be submitted to KIEKERT upon request.

1.7. Product Liability

(IATF 16949: Chapter 4.4.1.2)

The SUPPLIER shall be obliged to provide extended product liability coverage, including cover for warranty, connection-, mixing- and processing-damage, other damage from further processing, removal and installation costs as well as inspection and sorting costs, including foreign claims (worldwide including direct exports to USA/ Canada).

The minimum cover in case of damage must correspond to current business conditions (see FRM-GL-LC-014 Proof of insurance supplier). The requirements for insurance protection do not constitute a limitation of liability; their sole purpose is to mitigate the liability risk borne by our SUPPLIERS. An annual review of the currently required minimum cover as well as their adaptation and presentation must be carried out independently by the supplier.

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1.8. Quality Capability

(IATF 16949: Chapter 4, 8.5.1)

The SUPPLIER is fully responsible for the products and services supplied by it. The SUPPLIER commits to institute and maintain a Quality Management System. It is expected to proceed according to IATF 16949. The SUPPLIER must prove the effectiveness of its QM-System by means of a certificate at least in accordance with DIN EN ISO 9001. The use of relevant quality management tools (Core Tools) from the IATF 16949 is required. The supplier's clear development goal is the IATF 16949. The SUPPLIER provides KIEKERT with respective valid certificates without being asked and informs without being asked if a certificate has expired or withdrawn.

The SUPPLIER permits KIEKERT and its customers to perform audits to approve system, products, processes, and IT-security - at the request of KIEKERT or its customers, after consultation. The representative of KIEKERT and its customers must be given access to the production facilities. KIEKERT will in this case oblige its customers to adhere to secrecy obligations to the same extend as agreed upon under chapter 1.3.

The SUPPLIER obliges its sub-suppliers to comply with the obligations assumed by it under this agreement. Alternatively, the SUPPLIER must safeguard the quality of subcontracting through its own processes and procedures. KIEKERT may require the SUPPLIER to provide documented evidence that the SUPPLIER is convinced of the effectiveness of the Quality Management System at its subcontractors and/ or has ensured the quality of its purchased parts or external service by other suitable measures.

Insofar as KIEKERT provides the SUPPLIER with production and test equipment, these must be included by the SUPPLIER in its Quality Management System like its own production and test equipment, unless otherwise agreed. All operating and measuring equipment required by the SUPPLIER for the provision of services and in its possession, but owned by KIEKERT and/or customers, must be clearly and permanently marked as such. KIEKERT is responsible for the calibration of such operating and measuring equipment. Any other agreements must be concluded separately.

The quality agreements and standards agreed upon with KIEKERT are binding for the SUPPLIER.

1.9. Target Agreements

(IATF 16949: Chapter 6.2)

The SUPPLIER is committed to the zero-defect strategy and must continuously optimize its services accordingly. This goal must be pursued with measures such as consistent quality planning and series monitoring, with a focus on error prevention. Targets may be set in Target Agreements periodically. The setting of such targets does not affect the SUPPLIER's obligation to supply defect-free products only, nor does it relieve the SUPPLIER of claims by KIEKERT for defects in the case of defective or deviant delivery.

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2. Product and Process Development (Advanced Quality Planning)

2.1. Project Management

(IATF 16949: Chapter 8.1)

In order to include the SUPPLIER in the quality planning as early as possible, KIEKERT as part of the project management, requires its SUPPLIERS to carry out systematic planning in accordance with APQP. This planning includes both, the products delivered by the SUPPLIER and its purchased parts or outsourced processes.

2.2. Enquiry Documents

(IATF 16949: Chapter 7.5)

The SUPPLIER receives technical documents (e.g. 3D data, drawings, specifications, specification sheets, customer requirements and standards, test specifications) with the quotation by KIEKERT. The SUPPLIER must obtain any missing documents for the preparation of an offer. Copyright-protected documents, such as standards, customer specifications, etc. are to be purchased by the supplier.

Through its change management process, the SUPPLIER ensures that all relevant departments are always provided with the latest documents submitted by KIEKERT. Invalid/ outdated documents are to be marked as such and withdrawn from circulation.

At the request of the SUPPLIER, KIEKERT shall offer the SUPPLIER technical support from the relevant specialist departments. If the SUPPLIER recognizes that the design specified in the technical documentation or the prescribed test methods can be replaced by more suitable, economical and/ or effective ones, KIEKERT expects appropriate suggestions.

2.3. Scope of the Offer

KIEKERT expects the SUPPLIER to clearly take into account the respective inquiry documents in its offer. Deviations from these inquiry documents must be clearly marked by the SUPPLIER.

2.3.1. Feasibility Analysis

(IATF 16949: Chapter 8.2.3)

The Feasibility Analysis is to be created with the submission of the offer. The prerequisite for awarding the contract is a Feasibility Analysis evaluated and approved by KIEKERT. The result of the Feasibility Analysis must be documented in the supplier portal (“eFA”, electronic Feasibility Analysis).

The SUPPLIER checks the Feasibility Analysis of the product based on the technical documents submitted to it. For this purpose, all characteristics of a drawing or a specification must be individually assessed and confirmed. The Feasibility Analysis also includes the investigation of economic and process-feasible manufacturability, taking into account the requirements and information provided by KIEKERT in the supplier portal.

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2.3.2. Scheduling

(IATF 16949: Chapter 8.1)

The SUPPLIER prepares a project-related schedule including resource planning, which also includes the scheduling of subcontractors. This schedule is to be presented to KIEKERT with the final offer and includes the following criteria:

- Feasibility Analysis
- Calculations (simulations)
- Process Flow Chart
- Process-FMEA/ if applicable Product- (Design-)
- Control Plan (CP)/ Test Plan
- Resources for monitoring and measurement
- Tool/Equipment schedule including regular updating (if applicable via eTTS)
- Correction phase / optimization loops SUPPLIER
- Project- relevant milestones including milestones of KIEKERT, e.g.
    - First Qualified Parts (FQP)
    - Date of initial sample inspection
    - Internal Production-/ Process release audit in accordance with VDA 6.3, chapters 5, 6, (by SUPPLIER self-dependently)
    - Start of Production (SOP)
    - Launch Readiness Audit (LRA, performed by KIEKERT)
    - Run at Rate (R@R – Capacity-commitment and -verification, performed by KIEKERT)
    - Respective other

Changes and scope to the schedule may only be made in agreement with the APQP-responsible "Supplier Quality Engineer" (SQE) and the purchaser of KIEKERT and must be reported with sufficient lead time.

2.4. Ordering

(IATF 16949: Chapter 7.5)

With the order, the SUPPLIER receives binding, approved technical documents (e.g. 3D data, drawings) from KIEKERT. The SUPPLIER must check the documents and is obligated to inform KIEKERT if changes have been detected compared to the request status.

2.5. Duty to Inform

(IATF 16949: Chapter 8.2)

If it becomes apparent that agreements made between the parties (e.g. regarding quality, deadlines, delivery quantity) cannot be met, the SUPPLIER is obligated to inform KIEKERT without delay and initiate its internal escalation process. In the interests of finding a solution quickly, the SUPPLIER is obligated to disclose relevant data and facts and provides KIEKERT with an action plan.

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2.6. Special Characteristics

(IATF 16949: Chapter 8.2.3.1.2 / 8.3.3.3)

Special Characteristics require special consideration, as deviations in these characteristics may affect product safety, service life, assembly capability, function or quality of subsequent manufacturing steps, and regulatory compliance.

Special Characteristics are specified by KIEKERT in the "Quality Control Matrix for Special Product Characteristics (AQP special characteristics matrix)" and agreed upon together with the SUPPLIER. If there are no specifications for special characteristics, the SUPPLIER must independently select product and process characteristics, which make sense for product quality and process stability and submit to KIEKERT for approval. These results from the risk analysis of the SUPPLIER, e.g. from Product- (Design-) and/ or Process-FMEA. Special characteristics specified by KIEKERT are to be evaluated in the P-FMEA with a severity-value as defined in the "AQP special characteristic matrix".

Special characteristics must be identified by the SUPPLIER and marked in all relevant product and process documents (e.g. drawings, FMEAs, risk analysis, test and control plans). Special characteristics must be specially taken into account and monitored in all relevant planning steps. In order to prove adherence to special characteristics, scope and retention period of the necessary documents must be defined accordingly. All information must be available to KIEKERT upon request.

2.7. Process Flow Chart

(IATF 16949: Chapter 8.3.5.2)

The SUPPLIER is to create a process flow chart for the visual representation of the process chain.

This process flow chart must be consistent with the Product- (Design-) and/ or Process-FMEA and the control plan. Outsourced processes must be listed as part of the process flow chart.

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2.8. FMEA

(IATF 16949: Chapter 8.3.5)

The FMEA is a method to detect potential errors in the development and production/ assembly of a product or in new manufacturing processes, to assess the resulting risks, and to avoid them by taking appropriate measures. It is carried out in a multidisciplinary team.

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

- Development/ production of new parts
- Implementation of manufacturing processes/ manufacturing facilities
- Relocations
- Changes in drawings
- Changes in production processes
- To avoid errors
- For error prevention after a complaint
- Customer requirements (e.g. Reverse-FMEA)

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

- Special characteristics
- Material changes and mixing of materials
- Variant management
- Separation of defective parts, rework parts, setting parts and sample parts
- Technical cleanliness
- Lessons learned from similar products and processes

The FMEA must be carried out according to the methodology described in the latest standards.

2.8.1. Product- (Design-) FMEA

A Product- (Design-) FMEA is to be performed for all items developed under the responsibility of the SUPPLIER.

2.8.2. Process-FMEA

The SUPPLIER prepares a Process-FMEA for all process steps of each single component. Special attention must be paid to the special characteristics and, if applicable, the results of the Product-(Design-) FMEA. Furthermore, the Process-FMEA must be updated in case of changes and complaints.

Upon request by KIEKERT, the FMEA must be presented for inspection. Proof of creation of an FMEA is to be submitted at the latest during the initial sampling, with a corresponding cover sheet. Minimum requirements are information about initial investment, change status, FMEA team, as well as an overview of the evaluation methodology and the Task Priority used (in accordance with applicable regulations and/ or customer specifications; e.g. Reverse-FMEA requested by certain OEMs). KIEKERT shall inform the SUPPLIER of this by the respective SQE responsible for APQP.

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2.9. Total Productive Maintenance (TPM)/ Tool Management

(IATF 16949: Chapter 8.5.1.5 / 8.5.1.6)

The SUPPLIER must prove a documented TPM system.
All tool-relevant data must be documented accordingly in a tool management system (e.g. release status, maintenance history, service life, etc.).
If the SUPPLIER is commissioned with the production of tools, where KIEKERT or a third party (e.g. customer of KIEKERT) is the owner, these tools are to be marked as property of KIEKERT or the third party (see specification in the Supplier Portal).
Tool data must be entered and updated by the SUPPLIER in the KIEKERT Supplier Portal, basis for this is the content of the tool order.

2.10. Control Plan (CP)

(IATF 16949: Chapter 8.5.1.1)

The control plan is a planning tool. It must be derived from the P-FMEA and contain all the characteristics, which are rated as quality-relevant in the P-FMEA. The compilation takes place in a multidisciplinary team and covers all checks within the entire process chain. Generally, the scope and test frequency are defined in the "AQP special characteristics matrix".

The control plans should take into account the results and experience of similar processes and products. The control plan must be prepared in accordance with IATF 16949 Annex A1 for pre-series and series production phases. As far as applicable, the requirements of QR02 apply to prototypes.

The layout of the control plan must comply with the requirements of the automotive industry in accordance with IATF 16949 Annex A2.

2.11. Inspection Instruction

(IATF 16949: Chapter 8.5.1)

The control plan forms the basis for the Inspection Instruction. The Inspection Instruction shows all the characteristics to be evaluated with the associated test equipment and the test frequency for each work process.

For special characteristics, machine- and process-capability, investigations are to be scheduled. When planning, the determination of training for employees, as well as the setting up of workplaces with regard to statistical process control (SPC, control chart technique) must also be taken into account.

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2.12. Resources for Monitoring and Measurement

(IATF 16949: Chapter 7.1.5.1.1)

For all characteristics to be tested resulting from the production control plan, the SUPPLIER must specify the test methodology with appropriate test equipment. The procurement process must be planned in such a way that the necessary test equipment for the pre-production start is available and suitability of test process is proven.

The SUPPLIER must provide evidence in accordance with the requirements of VDA Volume 5 or AIAG MSA. Records for test equipment monitoring of all gauges, measuring and test equipment must be kept.

Evidence must be provided to KIEKERT upon request or for selected characteristics according to "AQP special characteristic matrix".

2.13. Statistical Process Control

(IATF 16949: Chapter 8.3.5.2 / 9.1.1.1)

The SUPPLIER commits to continually evaluate its processes and process flows by means of suitable software-based methods, to analyse errors and to carry out suitable corrective measures in order to maintain and improve process capability and to meet all requirements for zero-defect targets. Ongoing evidence must be provided by means of a CAQ system or other appropriate methods.

Process capability studies serve as a benchmark for the quality capability of the processes. For all special characteristics and, if applicable, further agreed inspection characteristics, the SUPPLIER must introduce suitable preventive measures and make these available to KIEKERT on request.

If customers of KIEKERT have no other requirements to statistical process capabilities (SPC), the following limits apply to demonstrate process capability:

- Machine capability: C_{mK} ≥ 2,00
- Short-term process capability: P_{pK} ≥ 2,00
- Long-term process capability: C_{pK} ≥ 1,67 with continuous improvement.

Machine capability and Short-term process capability must be performed during the sampling. Agreed capabilities are to be documented by the SUPPLIER and made available to KIEKERT upon request.

Deviating requirements for litigation capability or litigation capability index are agreed separately.

If the SUPPLIER can not conform to agreed process capability, the SUPPLIER performs root cause analyses, agrees to appropriate measures with KIEKERT, and performs them accordingly in order to prevent defective parts from delivered. Furthermore, a 100% inspection of the affected characteristics must be carried out in accordance with VDA specifications (see also "Co-Applicable Documents" in the Annex to this SQM).

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2.14. Requirements for Materials and Substances

(IATF 16949: Chapter 8.3.4.4 / 8.4.2.2 / 8.6.5)

All purchased parts, substances, and materials used for the contractual item in the SUPPLIER's production, as well as the processes required to manufacture the products, must comply with the applicable legal and regulatory requirements, e.g. environmental protection and work safety, distribution, and destination countries. Otherwise, the regulations in chapter 10 apply.

Depending on demand, with each delivery, the SUPPLIER sends the current safety data sheet unsolicited to KIEKERT. In case of changes, KIEKERT will receive the updated version without separate request. If an inspection certificate 3.1 according to DIN EN 10204 is required according to the order documents, this must be prepared by the SUPPLIER and, if requested, transmitted within one day. Depending on requirements, KIEKERT shall be provided with the associated safety data sheet, technical data sheet and / or material certificate for sampling purposes.

The SUPPLIER records all substances, substance groups and material data in the International Material Data System (IMDS) of the automotive industry at www.mdsystem.com and keep them up to date, or for Chinese OEMs, in the China Automotive Material Data System (CAMDS) at https://camds.org.cn/#/.

3. Result of Product and Process Development

3.1. Sampling of Prototype and Pre-Production Parts

(IATF 16949: Chapter 8.3.4.3)

Prototype and pre-series parts are products that are not fully manufactured under series conditions. The SUPPLIER shall sample such prototype and pre-series parts in accordance with VDA Volume 2, AIAG PPAP, KIEKERT QR02, KIEKERT "Sampling Guideline for Suppliers" or in accordance with KIEKERT customer's requirements.

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3.2. Initial Sampling

(IATF 16949: Chapter 8.3.4.4)

The SUPPLIER shall sample samples of new products in accordance with KIEKERT's "Sampling Guideline for Suppliers". The Kiekert "Sampling Guideline for Suppliers" combines the requirements for Europe according to VDA Volume 2 (Production Process and Product Release PPF) and for NAFTA (USMCA) states according to AIAG PPAP.

The initial sampling includes the use of the serial tool, the serial machines, systems, and devices, including compliance with the serial parameters, serial cycle time, at the production site, serial packaging, and logistics. Furthermore, personnel perform the initial sampling, which is also used for further serial production and is trained according to the work and testing instructions. In addition, the products and processes of the production materials are released separately. The process parameters set during initial sampling must be recorded and archived by the SUPPLIER and added to the internal sampling documents.

For all special characteristics and, if applicable, for further agreed inspection characteristics, the SUPPLIER must carry out and document detailed analysis of the suitability of the production equipment and test equipment used, as well as process capability analysis and document them accordingly. To determine the machine capability analysis, all parts used must have the same requirements and be manufactured consecutively. For normal distributions, a representative sample size should be chosen. The evaluation of the preliminary process capability is to be presented to KIEKERT. The information given in Chapter 2.13 applies to the required limit values. Further details are regulated in the KIEKERT "Initial Sampling Guideline".

For goods that are relevant for product safety, the requirements of IATF 16949 ⇔ chapter 4.4.1.2 must be observed and considered in the supply chain.

When using external laboratories, they must be accredited to ISO/ IEC 17025 (or nationally comparable). The SUPPLIER must provide appropriate evidence for this on demand.

The sampling documents must be sent in electronic form (ePPAP) to KIEKERT.

Serial delivery may only be made after the initial sample approval.

3.3. Reserve Samples

(IATF 16949: Chapter 8.5.1.1)

Reserve samples - at least two undamaged of each cavity - are kept safe by the SUPPLIER and protected against environmental influences. If the color, appearance or surface are relevant to KIEKERT’s processes, the reserve samples shall apply as reference (e.g. laser welding: laser light transmittance, varnished or plated parts, among others).

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4. Ensuring Product and Process Quality in the Series

Responsibility for the use of effective systems to monitor and continuously improve process and product quality lies with the SUPPLIER.

As technical possibilities permit, monitoring methods are to be used, which inevitably prevent the delivery of faulty products.

Details can be found in the respective KIEKERT standards/ Quality Assurance Agreements, compare list of co-applicable documents in appendix.

4.1. Exoneration (Easing of Burden) - Inspection by KIEKERT

(IATF 16949: Chapter 8.6.4)

The SUPPLIER is responsible for the adherence of specifications by means of an outgoing inspection in order to secure a flawless delivery of goods.

As a rule, KIEKERT limits the incoming inspection for deliveries by SUPPLIERs to the detection of deviation in terms of quantity and identity of the ordered contractual goods, as well as obvious transport and packaging damages. Detected deviations and damages are reported immediately. Apart from that, KIEKERT is exempted from the obligation to inspect and to give notice in accordance with respective applicable law.

During the production process, KIEKERT inspects the delivered goods in accordance with the conditions of a proper business process and notifies the SUPPLIER of any defects immediately after they have been ascertained. Beyond that, the SUPPLIER waives the objection of the delayed notice of defect.

The SUPPLIER is advised that it is in its interest to coordinate the above provisions with its liability insurer. It lies within the responsibility of the SUPPLIER to maintain insurance coverage, whereas the minimum cover in case of damage must correspond to the current update amount in case of damage must correspond to the current update amount (see FRM-GL-LC-014 Proof of insurance suppliers).

4.2. Treatment of Faulty or Suspect Parts

(IATF 16949: Chapter 8.7 / 10.2.3 / 10.2.6)

If KIEKERT or a customer of KIEKERT discovers a defect, an indication of the defect (complaint) will be provided by a test report and/ or written notice. Affected faulty parts will be sent to the SUPPLIER - as far as the SUPPLIER can reasonably be expected - or made available at KIEKERT for viewing.

The SUPPLIER is informed as to whether defective goods can be assembled conditionally or be sorted at KIEKERT. Reworking is generally not permitted and always requires previous coordination with KIEKERT. Within the scope of approved rework, the SUPPLIER continues to be responsible for the conformity of the goods in accordance with the latest approved release for delivery. The SUPPLIER is obliged to sort out and exchange faulty deliveries at its own expense so that no damage arises to KIEKERT. KIEKERT will set the timeframe for any actions.

Due to different time zones and to ensure production with consistent quality, KIEKERT reserves the right to take immediate measures in advance without the prior consent of the SUPPLIER (sorting out defective parts/ products). This is to reduce the risk of delivery of defective products to maintain customer satisfaction. Furthermore, KIEKERT reserves the right to choose the service providers to be used for any measures in the context of complaint handling. This should ensure the minimum standards

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required for the actions to be carried out (quality and transparency of work), as well as access control in the KIEKERT plants.

The SUPPLIER must examine whether further faulty goods are located at KIEKERT or are in transit and inform KIEKERT immediately.

The SUPPLIER must ensure by sufficient means (e.g. examination, sorting, and scrapping of own inventory and goods in transit) that no further faulty products are delivered to KIEKERT. The SUPPLIER must ensure that products to be scrapped are rendered unusable before they are disposed of. KIEKERT may carry out a scrapping of faulty delivered products directly on site in coordination with the SUPPLIER. KIEKERT may request proof of the scrapping carried out. If requested by the SUPPLIER, it will take place under the supervision of a representative of the SUPPLIER. The costs of scrapping are borne by the SUPPLIER.

If the SUPPLIER identifies errors in its facility from which goods already delivered may be affected, KIEKERT is to be informed immediately. Immediate emergency measures must be implemented and announced immediately.

Upon receival of a test report, the SUPPLIER shall transmit all measures (e.g. immediate measures, medium- and long-term corrective measures) to KIEKERT in the form of an 8D report (Kiekert 8D shall be used). The SUPPLIER notifies KIEKERT within 24 hours of receival of a complaint about the immediate measures taken (steps 1 to 3 of the 8D Report). The mid-term corrective actions (steps 4 to 5 of the 8D report) are to be reported within 3 working days, the long-term corrective actions (steps 6 to 8 of the 8D report) within 8 working days, unless otherwise agreed with KIEKERT. An extension of this period, e.g. by a comprehensive analysis at subcontractors, is to be notified by the SUPPLIER and agreed to with KIEKERT before the deadline. In the root cause analysis, the SUPPLIER uses appropriate methods (e.g. Ishikawa Cause and Effect Diagram, 5-Why). The SUPPLIER is responsible for monitoring the effectiveness of medium and long-term measures. KIEKERT reserves the right to verify the effectiveness.

If claims or complaints of defects repeat, or test reports are not answered timely or correctly, visits and quality meetings are held with the SUPPLIER. Possibly, resulting audits are carried out at the SUPPLIER. KIEKERT reserves the right to charge the SUPPLIER for additional expenses resulting therefrom. Claims for indemnification resulting from complaints and consequential secondary costs are also invoiced to the SUPPLIER (see 4.5 Escalation).

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4.3. SUPPLIER Charge Back / Cost Recovery

SUPPLIER Charge Back refers to the recovery by KIEKERT of all costs incurred as a result of non-conforming products, quality incidents, or SUPPLIER non-compliance with contractual, technical, or quality requirements.

KIEKERT is entitled to charge back to the SUPPLIER all reasonable, necessary, and documented costs attributable to the SUPPLIER's responsibility, including but not limited to material losses, labour efforts, production impacts, logistics expenses, testing and inspection costs, external service costs, and customer chargebacks passed on to KIEKERT. In addition, KIEKERT shall charge an administrative handling fee of EUR 150 or country-specific equivalent for each justified complaint or quality incident.

A charge back may be initiated upon detection of a quality incident at KIEKERT sites, customer locations, or in the field, including emergency measures taken to protect production continuity or customer supply. The initiation of a charge back is independent of escalation level and does not limit KIEKERT's rights to assert further contractual or legal claims.

KIEKERT shall notify the SUPPLIER in writing of the charge back, providing a description of the incident and the cost elements claimed. The SUPPLIER shall respond within ten (10) business days of receipt. Any objection must be substantiated with objective evidence. In the absence of a timely response, the charge back shall be deemed accepted.

SUPPLIER charge backs are directly linked to complaint handling and SUPPLIER performance evaluation. Repeated or severe charge backs may result in escalation measures, including Controlled Shipping Level (CSL) or New Business on Hold (NBH). Charge backs do not relieve the SUPPLIER from the obligation to implement effective corrective actions.

This provision supplements existing contractual agreements. In case of conflict, the contractually agreed documents and applicable law shall prevail.

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4.4. Part Defective Analysis on Field/ No Trouble Found Process (NTF)

(IATF 16949: Chapter 10.2.5 / 10.2.6)

In the case of field complaints, in addition to the 8D report, a systematic method/ process for damaged part analysis is to be performed, including an established No Trouble Found process and an extensive analysis of parts returned from the markets. To avoid recurrence of the problem, problem-solving approaches and corrective measures must be initiated or implemented. The SUPPLIER must communicate the results of these analyses, findings and measures both, internally and toward KIEKERT.

4.5. Escalation

(IATF 16949: Chapter 8.4.2.5)

If a SUPPLIER repeatedly causes quality problems with KIEKERT and/ or a risk to the customer is to be expected, KIEKERT proceeds according to a defined escalation model.

KIEKERT reserves the right to charge the SUPPLIER for the costs of the additional costs incurred as a result of 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 shall ensure the traceability and complete proof of quality of all materials, manufacturing processes and products by means of suitable production labelling measures. This also includes compliance with the FIFO principle throughout the supply chain. Basically, there are three levels of traceability:

1. Lot to Lot (Batch) – Traceability back to large single batch production by means of 3.1 certificate per batch, manufacturability date, quantities produced and employees
2. Box to Box – Lot (Batch) traceability split by subsequent processing operations
3. Serialized – Single part traceability with unique identification

In the above cases, the product and process data will be available at the relevant level 1, 2, or 3, as indicated in the Feasibility Analysis (eFA) and as agreed and documented during APQP. This will be verified during the SUPPLIER LRA/ R@R.

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Requirements for shipped products include:

- Must be traceable back to the raw material including the entire supply chain.
- A traceability map must be developed for the shipped products showing how the different processing steps are linked. This will be documented in the APQP record.
- The maximum size of a lot (batch) of one shift, or at a change of raw material, or where there are subsequent processing operations.
- Maximum lot (batch)/ box sizes shall be agreed to as part of business award.
- The product and packaging identification is part of the business award.
- The products and process data for the relevant traceability levels 1, 2, or 3 shall be made available upon request.

Traceability must be designed in such a way that, in the case of an error, it is possible to limit the defective products to at least the corresponding load carrier. The SUPPLIER must create and maintain plans for traceability to ensure continuous risk reduction.

Each package number of a shipping unit is to be listed on both, the delivery note and the acceptance test certificate (e.g. individual boxes on a pallet). The delivery note number ensures traceability throughout the entire process chain.

Separate arrangements for traceability are defined in separate Quality Assurance Agreements (e.g. QAA 01 "Quality Assurance Agreement for the processing, marking, and delivery of DS parts (safety parts with obligation to report: catch, pawl, striker)").

All product- and process-traceability-related records must be made available as fast as possible in the event of a quality-issue.

The SUPPLIER must provide the documentation

- within one month after delivery in two working days
- within 12 months after delivery in five working days.
- for deliveries after 12 months in eight working days.

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5.2. Recording Periods

(IATF 16949: Chapter 7.5.3.2.1)

The documentation is incumbent upon the SUPPLIER and must be carried out in a suitable form (fire and loss-proof), if necessary, with proven practicability (proof of discharge).

For documents, records and reference samples, the legal minimum retention periods must be observed. In addition, the recording period for all special characteristics and, if applicable, for further agreed inspection characteristics is 15 years after the series has expired (see VDA Volume 1). Longer storage periods (up to 30 years) are recommended against the background of the statute of limitations of product liability claims. The retention period for all other quality-related data is three years, beginning at the end of the year in which the data was created. The corresponding quality records must be submitted to KIEKERT upon request immediately.

If necessary, stricter customer requirements apply (e.g. GM "after the end of the series 50 years").

The SUPPLIER shall be informed of this by KIEKERT during the project by the respective SQE responsible for APQP.

6. Requalification Examination

(IATF 16949: Chapter 8.6.2)

KIEKERT demands an annual requalification by the supplier. The requalification must be performed according to the Control Plan (see chapter 2.10) as a complete dimensional and functional test, considering the applicable customer specifications for material and function. The SUPPLIER carries out the requalification examination without being asked and provides its documents or excerpts to KIEKERT immediately upon request. The first requalification must be carried out one year after serial release and annually thereafter.

If deviations from the latest, approved product release are found during the requalification, the SUPPLIER must inform KIEKERT immediately. Further procedure is to be agreed upon with KIEKERT.

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7. Change Management

(IATF 16949: Chapters 8.2.4, 8.5.6)

The supplier must implement a documented change management process based on the requirements of the IATF and the customer-specific requirements.

The SUPPLIER must use the Supplier Change Request form (FRM-GL-PU-018 "Supplier Change Request") for this request. The SUPPLIER will receive the result from KIEKERT after processing. All costs incurred by KIEKERT are recorded and agreed between the SUPPLIER and KIEKERT.

7.1. Reason for renewed product and process releases

(IATF 16949: Chapter 8.5.6)

A new sampling is generally required on the following occasions in accordance with the KIEKERT Sampling Guideline:

Engineering-changes	**Non-engineering-changes**
Product-changes	Installation of new or additional production equipment (machines, tools, lines, assembly)
Tool-changes	**Process-changes**
Material-changes	Relocation of production (relocation of sites or machines)
	Change of a sub-contractor of the SUPPLIER
	Suspension of production by ≥ 1 year
	Carry-over parts for other KIEKERT plants

Details as well as changes to the process and/ or product must be notified and applied in accordance with KIEKERT's "Sampling Guideline for Suppliers."

"Non-engineering-changes" must be requested at least with a lead time of six months.

Exceptions in procedure and scope are only permitted in consultation with KIEKERT.

7.2. Product History

(IATF 16949: Chapter 8.5.6)

At the request of KIEKERT, the SUPPLIER provides a product history. All changes to the product and changes in the process chain must be documented in a product history in accordance with VDA volume 2.

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8. SUPPLIER Management of KIEKERT

8.1. SUPPLIER Monitoring and Evaluation

(IATF 16949: Chapter 8.4.2.4)

KIEKERT carries out a SUPPLIER evaluation covering the last 12 months for the SUPPLIERS of production material. The SUPPLIER will be informed in writing about the result in the supplier portal.

The stated goal is to prioritize cooperation with A-rated SUPPLIERS. If no evaluation has been achieved as an A- or AB- SUPPLIER, measures must be taken (e.g. preparation and execution of an action plan) in order to provide the A-rated delivery service requested by KIEKERT.

8.2. SUPPLIER Development

(IATF 16949: Chapter 8.4.2.5)

The objective of the SUPPLIER's development is a systematic improvement of SUPPLIER performance in the SUPPLIER evaluation on the basis of a regular analysis over a longer period of time.

A starting point for SUPPLIER development is the initial sourcing of new SUPPLIERS. New SUPPLIERS/ applicants are evaluated and developed by means of a potential analysis according to VDA 6.3.

Another essential criterion for SUPPLIER development is the SUPPLIER evaluation as well as the number and severity of complaints/ claims. If a SUPPLIER deviates from given expectations in any of these criteria within the past period of observation, a detailed situation analysis will be made based on the available data, for example through supplier meetings, site visits, target-oriented inspection or request of documents, and the SUPPLIER's classification into an escalation level in accordance with the subsequent matrix.

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Escalation Matrix

Escalation Level	Criteria	Problem solving
EL 1 Performance Risk	- Repeated or significant quality and / or delivery performance issues - Risk of production interruption - Ineffective corrective actions - Negative trend in supplier performance evaluation	- Continuous monitoring through the established global Supplier Evaluation process - CSL1 / CSL2 implementation - Regular progress reviews - Verification of corrective action implementation and effectiveness status - Process and supply chain audits
EL 2 Critical Risk	- Repeated failures despite EL1 actions - Production disruption or line stop at Kiekert or OEM - Major quality, delivery or launch risk - Loss of confidence in supplier performance	- Executive management escalation - CSL2 / CSL3 implementation - Regular progress review at Kiekert - Intensive root cause analysis and problem solving - Process and supply chain audits
EL 3 New Business Hold (NBH)	- Failure to demonstrate sustainable improvement - Ongoing operational disruption - Critical business risk - Supplier considered incapable of Kiekert requirements	- New Business Hold (NBH) - CSL2 / CSL3 implementation - Recovery assessment by management - Exit strategy or supplier redevelopment plan

All costs incurred as part of the escalation process (escalation levels EL1 to EL3) shall be borne in full by the SUPPLIER.

The problem-solving methods defined in the above table in the problem-solving column can also be applied to existing SUPPLIERS in the case of new projects, new processes, new materials, new product groups and changed customer requirements. This can also be done as part of a potential analysis.

The aim is to achieve a systematic and sustainable improvement in delivery performance through effective measures and to avoid an escalation level.

This is achieved in particular by

- improving the QM-System of the SUPPLIER,
- improving product quality,
- reducing costs and
- improving supply reliability and logistical processes.

Any escalation level shall be documented in a separate form entitled “Escalation Level Agreement.” This form defines the escalation level, reason for escalation, exit criteria, and other relevant details. It shall be discussed, agreed upon and signed by the supplier. The escalation level may be removed or downgraded once the defined exit criteria have been met or increased if they are not met.

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8.3. SUPPLIER Audits (Second Party Audits)

(IATF 16949: Chapter 8.4.2.4.1)

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

- SUPPLIER risk assessment
- Development of the QM system of the SUPPLIER (development audits)
- Product and process audits

The determination of the need, type/ variant, frequency and scope of SUPPLIER audits is based on the following criteria:

- Risk analysis
- Certification level of the QM-System
- (Official) requirements for product safety
- Customer demands
- SUPPLIER performance

9. Subcontractor Management

(IATF 16949: Chapters 8.4, 8.3.2.3 and 8.4.2.3.1)

Subcontractors have a significant influence on the quality of the final product. The SUPPLIER must also ensure all KIEKERT requirements in its supply chain. The SUPPLIER should conclude Quality Assurance Agreements with its subcontractors for this purpose. The SUPPLIER must maintain a documented supplier management system. The SUPPLIER is responsible for the development of its subcontractors. The SUPPLIER should have the necessary skills and capacity to manage its subcontractors and monitor their performance. Incidentally, the regulations on subcontractors in Chapter 1.7 apply.

For SUPPLIERs of products and services including software or electronic hardware the QAA Electronics is to be considered additionally to this SQM.

10. Legal and Official Regulations

(IATF 16949: Chapter 1 / 8.4.2.2)

The SUPPLIER shall ensure that all applicable legal and regulatory requirements of the exporting country, the importing country and the country of destination specified by the customer are met. If the countries in question are not known to the SUPPLIER, it must request them from KIEKERT.

KIEKERT points out that all references to legal and official requirements listed in this SQM refer to the up-to-date status.

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11. Product Safety

(IATF 16949: Chapter 4.4.1.2)

The SUPPLIER appoints a responsible Product Safety Representative and ensures his/ her qualification through appropriate training (PSCR certificate “Product Safety & Conformity Representative”). Should the responsibility change, the SUPPLIER is obliged to inform KIEKERT and to communicate who the new responsible person is. The requirements for product safety must also be guaranteed by the SUPPLIER at its subcontractors.

12. Severability Clause

If any provision of this SQM is or becomes invalid or unfeasible in whole or in part, the remaining provisions of this SQM remain unaffected. In lieu of the invalid or unfeasible provision, a valid and enforceable provision shall be ensured, of which the resulting objective comes closest to the invalid or unfeasible provision. The same applies in case of a gap.

13. Period of Validity

Validity of this SUPPLIER Quality Manual (SQM) remains for the entire Product Life Cycle and during running or open delivery commitments.

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Annex

Confirmation

The SUPPLIER agrees to the requirements of this SUPPLIER Quality Manual and agrees to comply with them.

Applicable Documents

Abbreviation	Title
AIAG APQP	Advanced Product Quality Planning and Control Plan
AIAG CQI-9	Special Process: Heat Treat System Assessment
AIAG CQI-11	Special Process: Plating System Assessment
AIAG CQI-12	Special Process: Coating System Assessment
AIAG CQI-17	Special Process: Electronic Assembly Manufacturing-Soldering
AIAG CQI-20	Effective Problem Solving Guide
AIAG CQI-23	Special Process: Molding System Assessment
AIAG CQI-27	Special Process: Casting System Assessment
AIAG CQI-28	Traceability Guideline
AIAG CQI-30	Special Process: Rubber Processing System Assessment
AIAG FMEA	Potential Failure Mode an Effects Analysis
AIAG MSA	Measurement Systems Analysis
AIAG PPAP	Production Part Approval Process
AIAG SPC	Statistical Process Control
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

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Abbreviation	Title
IATF 16949	Requirements for quality management systems for series and spare parts production in the automotive industry
KIEKERT Form -FRM-GL-LC-014-	Proof of insurance suppliers (see supplier portal)
KIEKERT Quality Assurance Agreement -QSV-01-	Quality Assurance Agreement for processing, marking and delivery of DS parts (safety parts with obligation to report: catch, pawl, striker)
KIEKERT Quality Assurance Agreement -QSV-08-	Quality assurance declaration according for spring inspection/ testing (mass-production / initial sampling), processing, marking and delivery of DS parts – rather standard parts
KIEKERT Quality Assurance Agreement -QAA-21-	Quality Assurance Agreement for Process Monitoring / Control in the Injection Molding Process of Plastic Components
KIEKERT Quality Assurance Agreement -QAA-Electronics-	QAA-Electronics
KIEKERT Quality Assurance Agreement -QSV-Electronic Manufacturing Process-	Quality assurance standard of EMS (Electronic Manufacturing Services) QAA-Quality Assurance Standard for PCBA production process
KIEKERT Quality Assurance Agreement -QSV-03-	QAA-03 “Conflict-Free Smelters”
KIEKERT Quality Assurance Standard -Mechatronics-	Quality assurance standard for the production and quality assurance of electric component carrier (ECC)
KIEKERT Quality Assurance Standard -Metal-	Quality assurance standard for the production and inspection of pawls (SPK) and catches (DRF)
KIEKERT Quality Assurance Standard -Metal-	Quality assurance standard for the production and inspection of frame boxes (SCK) and frame plates (SCP)
KIEKERT Quality Assurance Standard -Plastic-	Quality assurance standard for the production and quality assurance of plastic components
KIEKERT Guideline	Sampling Guideline

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Abbreviation	Title
KIEKERT Guideline	Metrological Expectations (Laboratory Guideline)
KIEKERT Guideline	Code of Conduct
KIEKERT Guideline	IMDS Instructions for Suppliers
KIEKERT Specification -4903 0011-	Motor Specification - Technical data and requirements
KIEKERT SUPPLIER Document -KSD-11-003-	KIEKERT CSL (CONTROLLED SHIPPING LEVEL) Instruction
VDA Volume 1	Documentation and archiving
VDA Volume 2	Ensuring the quality of deliveries
VDA Volume 5	Inspection process
VDA Volume 6.1	QM System Audit
VDA Volume 6.3	Process audit

The listed reference documents are always valid in their latest version.

This list does not claim completeness.

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List of abbreviations

8D	Eight disciplines
§	Paragraph
A / AB	Performance classification in the supplier evaluation
AIAG	Automotive Industry Action Group
APQP / AQP	Advanced (Product) Quality Planning and Control Plan
BGB	Bürgerliches Gesetzbuch (German for „Code of Civil Law“)
NBH	New Business on Hold
CAMDS	China Automotive Material Data System
CAQ	Computer Aided Quality
C_{mK}	Capability machine Katayori (critical machine capability index) Katayori [Jap.] = "offset" or “shift” (of the process situation)
com	Commercial
CP	Control Plan
C_{pK}	Capability process Katayori (long-term process capability index) Katayori [Jap.] = "offset" or “shift” (of the process situation)
CQI	Continuous Quality Improvement
CSL	Controlled Shipping Level
de	Deutschland (German for "Germany")
DIN	Deutsches Institut für Normung e. V. (German for "German institute of standardization")
DS	Dokumentationspflichtige Sicherheitsteile (German for "Security parts with obligation to documentation")
e. g.	exempli gratia (Latin for "for example")
E-mail	Electronic mail
e. V.	eingetragener Verein (German for “registered association”)
eFA	electronic Feasibility Analysis
EL	Escalation Level
EMS	Electronic Manufacturing Services
en	english
EN	Europäische Norm (German for “European Standard”)
ePPAP	electronic Production Part Approval Process
etc.	et cetera (Latin for "and remaining")

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eTTS	electronic Tool Tracking System
FIFO	First In First Out
FMEA	Failure Mode and Effects Analysis
FQP	First Qualified Parts
FRM	Form
GL	Global
GM	General Motors (OEM)
https	Hypertext Transfer Protocol Secure
IATF	International Automotive Task Force
ID	Identification
IEC	International Electro Technical Commission
IMDS	International Material Data System
ISIR	Initial Sample Inspection Report
ISO	International Organization for Standardization (Greek from "isos" = equal)
IT	Information technology
LC	Legal / Compliance
LRA	Launch Readiness Audit
MSA	Measurement System Analysis
NAFTA	North American Free Trade Agreement
NDA	Non-Disclosure Agreement
No.	Number
NTF	No Trouble Found
OEM	Original Equipment Manufacturer
.org	Generic Top-Level-Domain, originally for non-commercial organizations certainly
PCBA	Printed Circuit Board Assembly
PPAP	Production Part Approval Process
PPF	Produktionsprozess- und Produktfreigabe (German for: “Production process and product release”)
P_{pK}	Preliminary process Katayori (short-term process capability index) Katayori [Jap.] = "offset" or “shift” (of the process situation)
PSCR	Product Safety & Conformity Representative
QAA	Quality Assurance Agreement
QM	Quality Management

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QSV	Qualitätssicherungsvereinbarung (German for "Quality Assurance Agreement“)
R@R	Run at Rate
SOP	Start of Production
SPC	Statistical Process Control
SQE	Supplier Quality Engineer
SQM	Supplier Quality Manual
UD	Usage Decision
USA	United States of America
USMCA	United States Mexico Canada Agreement (follow-up agreement of NAFTA)
VDA	Verband der Automobilindustrie e. V. (German for "Association of the Automotive Industry")
WWW	World Wide Web

Change history

1	Publication	1st edition	September 2026