Quality Manual
for Suppliers

Aiming for comprehensive customer satisfaction, the Quality Objective of RLS Merilna tehnika is to make sure the customers in our industry are delivered the top quality of products and services.

Considering that the quality of RLS products and services largely depends on the quality of outsourced products and services, it is our wish to establish and develop strong long-term relationships with our suppliers, thereby making sure that our suppliers deliver continuous quality improvements too.

The two conditions for the required quality, reliability and competitiveness of our products and services are having an established and controlled quality system, and continuous improvements. The latter compel a mutual partner relationship between RLS and the selected suppliers.

Glossary

APQP	Advanced Product Quality Planning
FMEA	Failure Mode and Effect Analysis
PSW	Part Submission Warrant
PPAP	Production Part Approval Process
SPC	Statistical Process Control
R&R	Repeatability and Reproducibility
8D	8 Disciplines of Problem Solving
MSA	Measurement System Analysis

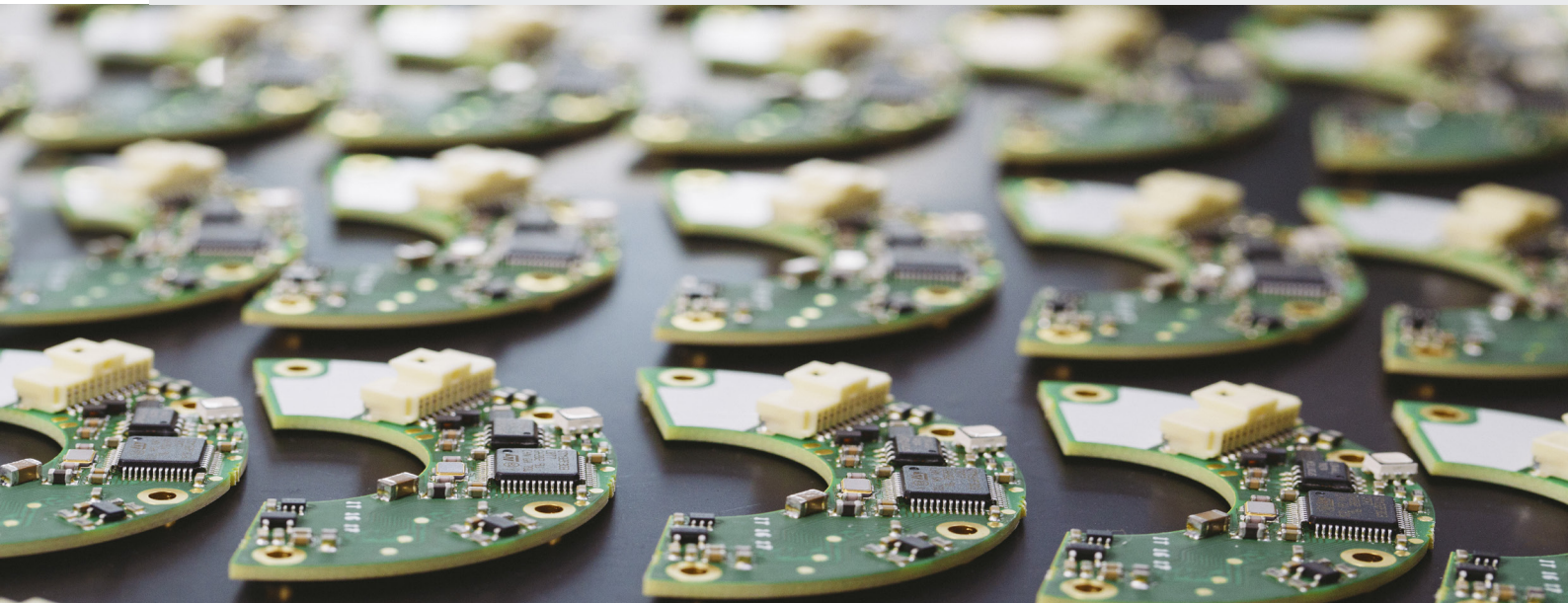


Table of Contents

1. Quality Management Objectives 3
2. Quality Management System 3
3. Supplier Selection and Evaluation 4
    3.1. Supplier Selection 4
    3.2. Supplier Evaluation 4
4. Quality Planning 5
    4.1. APQP 5
    4.2. Feasibility Study 5
    4.3. PPAP 5
    4.4. SPC 6
    4.5. FMEA 6
    4.6. MSA 6
    4.7. Initial Samples 7
    4.8. Special Characteristics 7
5. Change Management 8
6. Non-Conformance Procedures 9
7. Audits 10
8. Requalifications 10
9. Documentation Management 11
10. Order Fulfilment Process 11
11. Packaging and Shipment Labelling 11

1. Quality Management Objectives

As a RLS' supplier, you are responsible for the quality of products and services you deliver. The scope of this manual is to define RLS' demands towards the supplier pertaining to quality, thereby ensuring long-term:

- High quality of products and services.
- Transparent communication.
- Continuous improvement of efficiency and effectiveness of the whole supply chain.

At the heart of product and service quality planning and assurance at RLS lie a preventive approach and the policy of continuous improvements. RLS also demands the enforcement of a continuous improvements policy from our suppliers, who must above all focus on:

- "Zero defects" related to quality.
- Ensuring conforming deliveries.
- Continuous improvements of products, services and processes.

2. Quality Management System

The implementation of an efficient quality management system according to the latest issue of ISO 9001 and the development of a quality management system according to IATF 16949 are the main conditions for establishing a long-term business relationship between RLS and the supplier.

The quality management system's effectiveness is proven by/through:

- Quality performance indicators for delivered products and services (PPM, volume of complaints).
- On-time deliveries.
- Efficient implementation of corrective and preventive actions.
- Continuous and provable improvements to products, services and processes.
- Fulfilling the objectives of respective projects (time-, quality- and cost-wise).
- Effective communication on all levels.

3. Supplier Selection and Evaluation

3.1 Supplier Selection

At RLS, new suppliers are approved using a process in which we verify the supplier's financial status, make a risk and opportunity assessment, sign the necessary contracts, gather information about the supplier's quality standard and audit the supplier's processes according to VDA 6.3.

The criteria for approving a new potential supplier are as follows:

- Financial rating (on a scale from 0 to 10): > 4.
- ISO STANDARD: ISO 9001, IATF 16949, VDA 6.3 audit score > 70% or SSAF audit score ≥ B.
- Risk assessment done by RLS Merilna tehnika.
- Signed NDA.
- Signed contract with the supplier.

In case that RLS detects during the risk assessment or audit the need to perform certain activities involving the supplier, RLS can make an agreement with the supplier to conduct an action plan to eliminate the risks, improve certain shortcomings or eliminate any non-conformances.

3.2 Supplier Evaluation

In order to improve or maintain the supplier's operations and quality performance, RLS is tracking the supplier's performance indicators (see below).

Once quarterly, RLS reviews the results and informs the supplier about actions necessary to improve any critical areas. Furthermore, RLS is sending its suppliers annual satisfaction reports covering the whole past business year. The scoring structure is presented in the table below.

Supplier scorecard:

	Quality System		On-time Delivery			Number of complaints		
Result	ISO 9001	No ISO 9001	>90%	80-90%	<80%	0 or 1	From 2 to 5	More than 5
Points	15	0	25	12.5	0	20	10	0

	PPM			Replacement deliveries, rejected deliveries & recalls, warranties			Total		
Result	<500	500-1000	>1000	0 0 0	1 1 0	>1 >1 >0	>85	70-85	<70
Points	25	12.5	0	15	7.5	0	A	B	C

The suppliers of calibration services are not included in the general supplier evaluation scheme. A calibration supplier can be a laboratory accredited to ISO/IEC 17025 or equivalent national standard, an OEM or another organisation that can be shown to be acceptable to us/our customers (e.g. by audit).

4. Quality Planning

4.1 APQP

The supplier must design and develop new products and services in line with the requirements of the APQP methodology, or other requirements defined by RLS, if so agreed. The supplier must appoint a professional who is qualified for preparing the documentation and performing activities according to the requirements of the automotive industry (APQP, PPAP, MSA, SPC, FMEA or equivalent according to VDA). All related costs must be calculated in the price of products and services.

4.2 Feasibility Study

Together with every inquiry related to a new or modified product, RLS sends the supplier a feasibility study form. The supplier is obligated to complete the form to present the actual process capability.

4.3 PPAP

Prior to starting serial production, the supplier must deliver to RLS a PPAP composed of the elements listed below. RLS may allow some elements to be omitted, depending on the change / reason for resampling:

1. Coordinated document “Product requirements”, signed-off by the supplier.
2. Last valid drawing.
3. Design FMEA (DFMEA).
4. Process FMEA (PFMEA).
5. Manufacturing process flow diagram.
6. Control plan.
7. Measurement report for geometrical dimensions.
8. SPC analysis / CPK report for special characteristics.
9. Analysis results (material certificates, testing reports).
10. Measurement system analysis (MSA).
11. Documentation pertaining to laboratory qualifications (ISO 9001, IATF 16949, ISO 17025).
12. List of control aids.
13. R@R report.
14. Packing requirements.
15. Confirmation of visual appearance.
16. RoHS, Reach conformance.
17. Sample products (PPAP samples).
18. Part submission warrant (PSW).

4.4 SPC

Different statistical methods (Statistical Process Control) are used to monitor and control processes, such as sampling, control charts, calculation of process performance Ppk, Cpk, measurement and test equipment capability etc. The sample size must be determined prior to using a specific method according to VDA standard or PPAP.

Unless required otherwise, the process capability is deemed to be proven and to yield appropriate quality in the following cases:

Characteristic	Sampling	Serial production
Safety	Ppk ≥ 2.00	Cpk ≥ 1.67
Functional (significant)	Ppk ≥ 1.67	Cpk ≥ 1.33

The SPC requirements must be met for every batch (in serial production).

If there exist special characteristics for mechanical products, cable harnesses and PCBs, the supplier must ensure and prove a stable and capable process (see point 6.3 SPC) by delivering a statistical report. The report is delivered upon sampling or per request of RLS.

In case the supplier fails to achieve the above targets for a certain characteristic during the implementation or later during the lifecycle of the project, the supplier must temporarily establish 100% control of the said characteristic (unless agreed otherwise with a senior RLS quality engineer). Once the characteristic is (returns) inside the above boundaries, 100% control is no longer necessary.

4.5 FMEA

FMEA (**F**ailure **M**ode and **E**ffect **A**nalysis) is an analytical preventive method, which prevents potential failures before they even occur. The method enables early identification of failure points, lowers the costs of failure identification and mitigates the risks due to failures. The supplier is obligated to conduct a risk assessment according to the above method or a suitable alternative method in the following cases: new product development, changed processes, deviations from the planned quality, and continuous quality improvements.

4.6 MSA

MSA (**M**easurement **S**ystems **A**nalysis) is quality assessment for an existing measurement system, which is decisive for controlling the process parameters and product and service characteristics. The supplier must conduct the assessments to analyse the following measurement system types:

- Variable measurement systems (variable characteristics are those whose value can be expressed numerically): we measure e.g. using vernier callipers, micrometers, dial indicators, height gauges.
- Attribute measurement systems (attributes/descriptive characteristics): we measure e.g. using limit gauges, Go-No Go gauges.
- Complex measurement systems (measurement systems which do not allow measuring the same piece several times - destructive or non-repeatable measurement systems).

4.7 Initial Samples

The supplier is obligated to submit initial samples for all products and services to be delivered to RLS. The initial sample presentation procedure is used to assess the conformance of products and services to their specifications. When presenting the initial samples, the supplier must respect a rule requiring that the products and services must be created using serial manufacturing equipment. The submission of initial samples is required in the following cases:

- New product or service.
- Modified product.
- Products and services made using repaired or new equipment.
- Modified manufacturing process or a new manufacturing location.
- After an interruption of production, longer than 6 months.

The minimum quantity of initial samples is a quantity manufactured in 1 to 8 hours, or no fewer than 300 pieces manufactured in a row, as prescribed by the latest valid edition of PPAP or a suitable alternative according to the VDA standard. In the case of smaller annual volumes, RLS can also define a smaller quantity of samples that will still fit the requirements of various analyses (SPC ...). The submitted samples must be accompanied by a presentation report, according to the requirements of PPAP. RLS will reject any incomplete presentation reports for the initial samples. The supplier must label the initial samples with the words “initial samples” on all delivery documents and on the packaging. The supplier must e-mail the complete documentation (each document in a separate file) to the contact person appointed by RLS. In order to avoid any ambiguity regarding the identity of the initial samples, a copy of PPAP documents must be enclosed with the shipment. RLS reserves the right to bill the supplier for any extra costs of resampling in case the initial samples do not conform to RLS’ requirements.

The possible statuses of sampling results are:

- Approved.
- Other.
- Rejected.

If the status is Other or Rejected, the supplier is obligated to present corrective actions that will make it possible to reach the Approved status, as agreed with the contact person at RLS.

4.8 Special Characteristics

To remain compliant with the high legal and regulatory requirements, as well as to satisfy the ever-increasing demands of RLS’ customers, both RLS and the supplier are obligated to pay extra attention to the specification, execution and validation of special characteristics. Failing to comply with the defined and agreed requirements may lead to significant consequences, such as recall from the market, replacement of non-conforming products and services, and prohibition to sell, possibly compromising reputation and leading to loss of business.

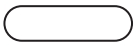
All functions that are designated with a special characteristic require the archival of all data, measurement values and documents for full verification of all controlled manufacturing processes, performed tests etc., as prescribed in the latest valid VDA standard.

Special characteristics can be:

- Safety characteristics.
- Characteristics subject to legal requirements.
- Characteristics affecting the function when the product is installed as part of an assembly.

These characteristics are defined in the tender specification and/or in the attached technical documentation, and are also clearly labelled. The supplier is obligated to control and monitor special characteristics in accordance with the approved control plan. Records on special characteristics must be kept for no less than 15 years after the end of production (EOP).

The supplier is obligated to label special characteristics in its documentation using the RLS' labelling method:

Description of characteristic	Safety or regulatory characteristic	Functional characteristic
Symbol		

Note: see chapter 4.3

The storage of all documents subject to the requirements for special characteristics must be done appropriately, in accordance with the legal requirements and sets of rules according to the latest valid VDA standards (microfilming is allowed). The records must be kept for no less than 15 years after the end of production, except if required otherwise by RLS. In the event of supplier's bankruptcy, RLS retains the right to acquire all the documentation related to proving the quality of supplied products and services covering the required period of 15 years.

The supplier must clearly label all deliveries of products and services with safety characteristics and characteristics subject to the legal requirements. Every packaging unit (gitterbox, palette, roll etc.) and material certificate must be labelled.

Every supplier's subcontractor must be approved and is obligated to execute the same procedures related to the documentation as it is required from the RLS' direct supplier.

5. Change Management

No modifications to the supplier's processes and/or products and services, or to its supply chain are allowed without prior notice given to RLS and without an approval from RLS. The supplier must provide an adequate scope of information in time, so that all necessary activities can be performed (installation of samples, RLS samples, certification, long-term testing and approval by the end customer (RLS' customers)). In the event of modifications to products and services, the suppliers are generally required to label its first deliveries according to RLS' requirements.

The supplier is obligated to record and, when necessary, present the history of revisions of the product, service or process. In case of any modification, the supplier is obligated to update the PPAP documentation and present it to RLS, based on the agreement with RLS regarding the required level of PPAP (see paragraph 4.2 in this Manual). A modification of product and service and/or process may be released to serial production only after the PPAP documentation has been approved by RLS. The supplier shall be billed for any additional costs incurred due to the reapproval procedure, which was requested by the supplier.

The supplier is responsible for the development of its own subcontractors to an extent which is no smaller than the scope of requirements in this document. In case the supplier intends to replace one of its own subcontractors, the former must first obtain an approval from RLS. RLS retains the right to audit and release the subcontractors. Any replacement of a subcontractor, change of location or replacement of equipment leads to a reapproval of the products, services and process.

In case the supplier detects any deviations in the properties or the reliability of products and services from the agreed requirements, the supplier must immediately notify RLS and begin to remedy the non-conformance according to the requirements set forth in this document. Until corrective actions have been implemented and confirmed, RLS may demand special measures (e.g. a higher level of testing, 100% tests, additional work operations/process steps) to be taken for a certain period. The costs incurred shall be borne by the supplier.

6. Non-Conformance Procedures

Immediately after receiving a delivery of products and services, RLS shall execute acceptance sampling, consisting of the following checks:

- Identification of products and services.
- Volume of delivery.
- Any visible damages to packaging, products or services.
- Certificates.
- Key dimensions as labelled in the AS control plan.

In case RLS detects any defect in the delivered product or service during the acceptance sampling, the supplier shall be immediately notified via an official complaint. The supplier shall be notified later of any faults that have been missed during the acceptance sampling and are detected later in scope of the standard operating procedures. In case a fault is detected only after the acceptance sampling, i.e. in scope of RLS' processes or by the end customer (RLS' customers), this shall in no way lessen the supplier's responsibility for the appropriate logistics and quality of deliveries of products and services.

A complaint is any determined deviation from the defined requirements in terms of logistics and/or quality. After receiving a complaint, the supplier is obligated to deploy corrective actions to prevent repetition, mitigate the consequences and ensure uninterrupted supply. Immediate actions must be delivered in 24 hours after receiving a complaint via an 8D form. The root cause of non-conformance and corrective and preventive measures must be presented in 10 days, unless agreed otherwise. Methods such as 5 Whys, Fishbone and action effectiveness validation must be used to determine and eliminate the root cause. The supplier must undertake a teamwork approach to problem solving.

In specific cases, the supplier may request in writing a release of products and services under special conditions. A release under special conditions is then agreed with RLS' departments and must be confirmed in writing. Unless agreed otherwise, the actions must be presented using the "Deviation approval form". The supplier assumes full responsibility for all costs incurred by any non-conformance, which was detected by RLS as the buyer or by the buyer's customers, and which was caused by the supplier.

7. Audits

The supplier is obligated to conduct regular (at least once a year) audits, and in the case of problems also additional exceptional audits of products and services and processes (usually according to VDA 6.5 and VDA 6.3, or as agreed in advance with RLS) to ensure continuous improvements of the manufacturing process.

RLS, its customer or a third party appointed by RLS have the right to audit the supplier or its subcontractor in order to determine the effectiveness of the quality management system and continuous improvements (system, process, product audits). RLS shall respect any supplier's restrictions in terms of industrial property protection. Supplier audits shall be coordinated in advance with the supplier, and any information gathered shall be treated as confidential information.

In the event of any unexpected major defects, failures or an insufficient score, RLS reserves the right to immediately visit the supplier and inspect the process control.

Audit criteria:

- Quarterly review of supplier performance or annual score: B or C.
- Number of complaints inside a three-month period: >5
- Large quantity of non-conforming products: >2000 pcs per complaint.

The criteria are not binding and the decision about the audit shall be made by a senior quality engineer, Head of technology or Head of operations.

Audit results will be used for the decisions pertaining to supplier selection (see pt. 3.1) and to determine the necessary improvement actions.

In the case of recurring exceptional audits as a part of the escalation process, RLS reserves the right to the reimbursement of costs incurred by the audited supplier.

After receiving the audit report, the supplier is obligated to deploy the necessary actions related to the detected non-conformances within the agreed deadline.

The suppliers of measurement equipment and calibration services are not audited, we only check their accreditation. In the event of an incident that could potentially harm or impair the operations of RLS Merilna tehnika, the Head of operations will be involved in deciding whether to audit a supplier of measurement equipment or calibration services.

8. Requalifications

The supplier is obligated to conduct requalification tests for all characteristics of products and services, as required upon the validation of PPAP. The supplier must execute the requalification procedures at least once a year, according to the requirements of IATF 16949 and the general requirements of RLS' customers. The supplier is obligated to send proof of executed requalification to RLS within 48 hours of receiving a request, and free of charge. RLS shall prescribe and approve the requalification documentation.

* This chapter is only valid for suppliers operating in the automotive supply chain..

9. Documentation Management

The supplier is obligated to keep detailed records on the execution of its quality control actions, including the documentation pertaining to the initial samples, training, requalifications, as well as physical initial samples and the complete documentation related to the special characteristics. Furthermore, the supplier is obligated to store the documentation for no less than 15 years after the end of production (EOP). The documentation management processes must be in line with the latest valid VDA standard and with RLS' specific requirements.

If necessary, the supplier shall provide access and support to RLS with the analysis of documentation and samples, as well as submit the samples and documentation upon request.

The supplier is obligated to present the requested documentation and samples within 24 hours of the request. This shall apply in particular to those characteristics of products and services that require proof of statistical process capability.

The supplier is obligated to coordinate with RLS the functional project management during the design and development of products and services, processes and other extensive tasks, in accordance with the latest valid VDA standard or an appropriate alternative.

10. Order Fulfilment Process

In the event of production equipment breakdown or malfunction, the supplier must ensure the availability of products and services for RLS through appropriate measures (e.g. a rapid and contractually based access to the toolmakers and manufacturers for equipment maintenance, safety stock of products and services). The supplier is obligated to set up and maintain an appropriate maintenance system to avoid any interruptions in deliveries.

The required capacities must be validated by RLS or by the supplier and proven in scope of the project phase. These capacities must be available at all times. The supplier is also obligated to develop a contingency plan for uninterrupted supplies to RLS.

11. Packaging and Shipment Labelling

The supplier must make sure that the products and services in storage are protected from damage and from material property changes due to environmental influences. Unless agreed otherwise, the supplier must provide the necessary packaging and identification according to RLS' requirements in the "Product specifications".

The packaging method must be coordinated and approved by RLS. The supplier must label its products and service according to RLS' requirements in the "Product specifications".

The supplier must be able to determine, at any time, which products may cause potential problems at RLS or its customers. Accordingly, the supplier must provide appropriate labelling of products and services.

Document issue

Issue	Date	Page	Change
2	2. 12. 2020	4	ISO chapter amended
		5	Feasibility study added
		10	Audits amended
		12	Delegated Materials chapter removed
3	4. 6. 2026	4	ISO chapter amended

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