Supplier Quality Manual

Quality Manual for Suppliers of the Zollner Group

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Contents

1. Preamble

This Quality Guideline for Suppliers (hereinafter referred to as "SQM" = Supplier Quality Manual) defines Zollner's minimum quality requirements for suppliers for the procurement of products, services and other performances. The requirements are based on the regulations of the current DIN EN ISO 9001 and assume its validity as a basis.
This SQM describes Zollner's requirements for the quality program of its suppliers as well as the obligations to be met by the suppliers with regard to the manufacture, testing and delivery of products which are manufactured or provided for Zollner.
Supplier shall ensure and it is supplier's responsibility to review and evaluate these requirements with respect to its sub-suppliers and to pass them on to its supply chain to the appropriate extent.

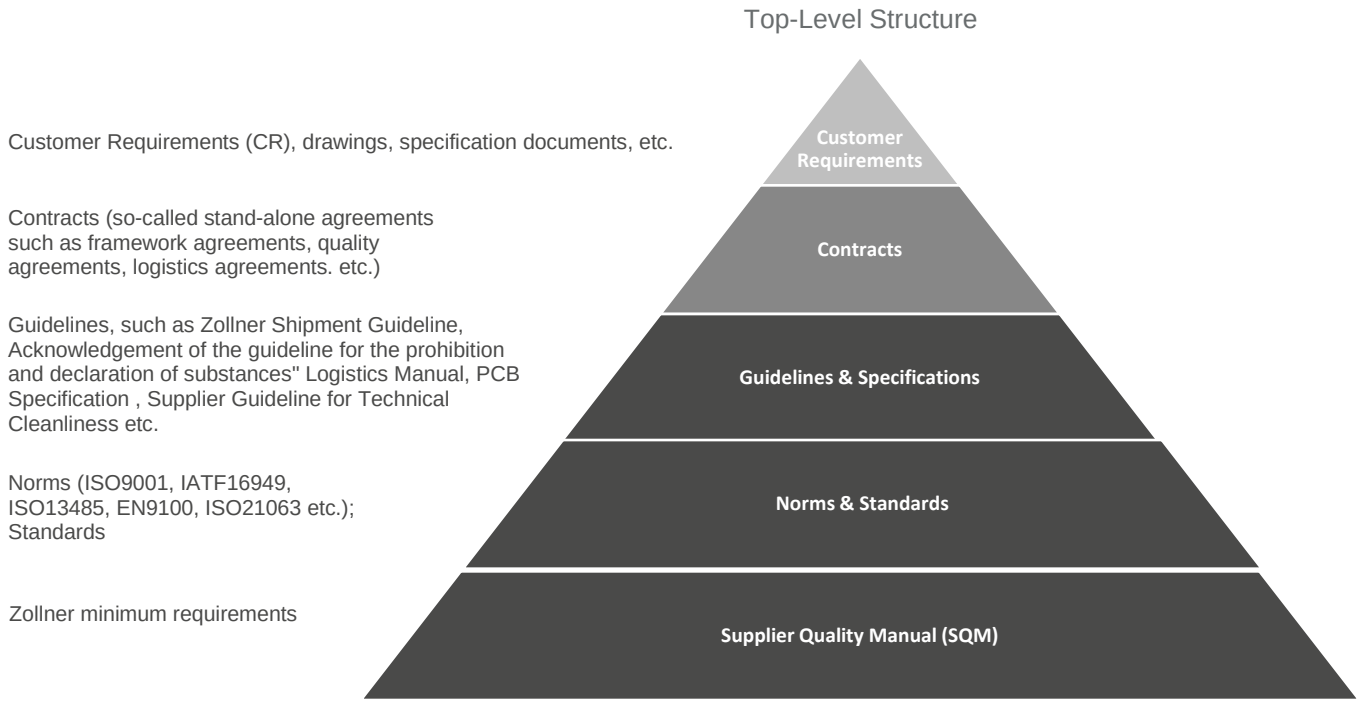
1.1 Subject Matter and Scope of the Manual

All deliveries and services by the supplier or by one of its affiliated companies to Zollner Elektronik AG and all of its affiliated companies within the meaning of Section 15 of the German Stock Corporation Act (AktG) are subject to this SQM . The Zollner Group of Companies is hereinafter referred to as "Zollner". This SQM applies to all Zollner sites worldwide.
The supplier bears the sole responsibility for the quality of the products manufactured for or delivered to Zollner. Further quality-related requirements can be regulated in an additional quality assurance agreement.

2. Quality Management System and Audit Access Rights

As a minimum requirement, the supplier shall maintain a certified quality management system in accordance with DIN EN ISO 9001, with the willingness to further develop its system with regard to additional industry-specific requirements (e.g. Automotive, Aviation industry, Railroad technology, medical technology). Suppliers who do not meet this minimum requirement must provide Zollner with a specific implementation schedule or at least planning.
Upon request, the supplier shall grant employees of Zollner and third parties (e.g. customers and authorities) access to all relevant areas and the corresponding documented information involved in the production and delivery of the products and services as part of an audit.

3. Hierarchy of Requirements and Documents



4. Compliance

a) Environmental, Health and Occupational Safety

The supplier undertakes to comply with all statutory regulations on environmental protection, health and safety at work and to keep the impact on people and the environment to a minimum by means of an appropriate environmental protection management. For this purpose, the introduction and further development of an environmental management system according to DIN EN ISO 14001 or equivalent systems is expected.
The supplier's products must comply with the legal regulations applicable in the country of manufacture as well as in the country of distribution, in particular the safety regulations and environmental protection regulations, as well as the respective applicable standards.

b) Social responsibility / Code of Conduct

The supplier shall comply with the Zollner Code of Conduct as amended from time to time. The Code of Conduct can be found on the Zollner homepage (www.zollner.de).

c) Material Compliance - Conflict Minerals, RoHS, REACH, Prohibited Substances, General

The handling of the order process between the respective parties is based on the requirements of the "Acknowledgement of the guideline for the prohibition and declaration of substances" as amended from time to time. This guideline is available on Zollner's website (www.zollner.de). The supplier shall ensure compliance with the regulations of this guideline.

d) Handling of Lithium Batteries

See item 5.3 in the ""Acknowledgement of the guideline for the prohibition and declaration of substances" as amended from time to time,available on Zollner's website (www.zollner.de) and also applies to products containing lithium batteries. The supplier shall ensure compliance with the regulations of this guideline.

e) Counterfeit - Counterfeit, tampered, or suspected Products

The supplier shall ensure that no counterfeit, tampered or suspected products are delivered to the customer.

5. Evaluation of Product Requirements / Feasibility Check

The supplier shall direct all technical documents, check them and ensure that they comply with the respective requirements and accompanying documents of the order.
The supplier is obliged to examine all documents, drawings and specifications for errors or ambiguities. This examination must take place before the start of production.
If, after checking the information sent, the supplier finds that it is incomplete, contradictory or not feasible for the supplier from a technical point of view or uneconomical from a commercial point of view in order to provide the service, the supplier shall contact Zollner immediately, at the latest within one working day, and provide the data accordingly. This shall also apply to feasibility-critical applications.
If customer specifications or standards are communicated to the supplier by Zollner, these shall additionally apply to the respective products.

6. Goods Labeling / Marking for Traceability

The supplier shall mark the products in the form agreed with Zollner. The marking must be clearly and visibly attached to the delivered goods. Each shipping unit must be labeled at least with information on the consignee, delivery note number, purchase order number, material number, quantity, sender, date of manufacture and shelf life. It is mandatory to have additional information on each smallest packaging unit. These details as well as the associated label are coordinated and agreed in advance between Zollner and the supplier.

The supplier shall implement a suitable traceability concept according to the state of the art for all products delivered to Zollner.
As part of the traceability concept, the supplier must be able to identify the material supplied and, in the event of quality deviations, isolate all affected products in order to minimize possible damage.
Furthermore, the handling of the ordering process between the parties incl. the packaging guidelines is based on the requirements of the "Logistic Manual" as amended from time to time. The manual is available on Zollner's website (www.zollner.de). The supplier shall ensure compliance with the regulations of this Logistic Manual.

7. Retention Periods

The retention period for documents subject to retention (e.g. applicable test and production documents, approved deviations, test sample quantities, material specifications, measured values, test data as well as all data required for traceability) is based on the legal and industry-specific regulations, but may in no case be less than three years.

8. Quality target / Zero defect target / Continuous improvement

The supplier is committed to the zero defect target and communicates it both internally and to its sub-suppliers.
The supplier continuously works on measures to improve and achieve the zero defect target.

9. Complaints Handling

The supplier shall provide Zollner with a Return Material Authorization (RMA) number within two days, if available.
If the supplier does not send the RMA number in due time, Zollner is entitled to return the goods even without the RMA number. Return deliveries are always charged to the supplier.
Requested statements or 8D reports must be sent to the person in charge named in the test report by the deadline specified in the test report, quoting the test report number and Zollner part number.
For this purpose, the industry-specific problem-solving tools are to be used according to the state of the art.
Complaints as well as the receipt of untimely RMAs, statements and 8D reports have an impact on the supplier rating.

If Zollner requires 8D-reports for focus industries such as Automotive, Aviation, Medical, Railway technology or individual, the supplier must provide a well-founded 8D-report.

Please also refer to our 8D Guideline, which can be provided on request by the responsible complaints operator or the central supplier quality department.

10. Notification of Product and Process Changes

Intended changes of products and processes by the supplier as well as discontinuations of products are to be reported to Zollner in the form of a

- Process Change Notification (PCN) or
- Product Termination Notification (PTN)

at least in text form in advance.
The central receiving address for this is pcn@zollner.de.
Only information received at this e-mail address is considered received.

The supplier is subject to an obligation to provide information in the following examples:

- Relocation of the production site
- Change of material
- Discontinuation of products
- Change of the QM-System
- etc…

The PCN or PTN must be sent at least 6 months before implementation.

11. Control of Defective Products

For the control of defective products, the following additions apply in particular, but not conclusively:

- Products suspected of being defective or not marked shall be steered like defective products and
- Zollner must be informed immediately if a defective product has been delivered; the delivered product must remain blocked until final release; and
- Defective or suspected products may only be delivered after approval by Zollner.

12. Escalation Process / Matrix / Contact Persons

The supplier shall inform Zollner about the respective contact persons by providing contact details per escalation level for the following work areas:

- Key Account Management
- Marketing
- Engineering
- Quality
- Logistics
- Research & Development
- Legal & Patent Department

If the contact persons and/or contact data provided change, the supplier shall proactively inform Zollner.
Upon request, the supplier shall transmit the description of the escalation process with the respective escalation levels to Zollner.

13. Initial Sampling / Product Release

If Zollner requests an initial sampling in the order, the supplier shall enclose the relevant documents with the delivery in the form requested by Zollner. Series delivery may then only take place after release of the initial samples.

14. Emergency Plans

The supplier shall draw up plans to ensure that the requirements of Zollner and its customers are met in the event of an emergency (e.g. in case of failure of power supply or important operating equipment / information technology, shortage of manpower, field complaints, etc.).

15. Technical Cleanliness

Products and/or projects with technical cleanliness requirements are to be handled by the supplier in accordance with the "Supplier Guideline Technical Cleanliness". These are to be requested on a case by case basis from the respective contact person in the Zollner Purchasing Department if required.

16. PCB-Specification

If the supplier delivers printed circuit boards to Zollner, the PCB-Specification of Zollner shall apply in the respective valid version, provided that no other customer requirements exist and these have been explicitly agreed with the supplier.
This specification is agreed individually between Zollner and the supplier and serves as a guideline for the procurement of Printed Circuit Boards. These are to be requested case by case basis from the respective contact person in the Zollner Purchasing Department if required.

17. Selection and Approval of Suppliers

The selection and approval of suppliers for production material, quality-relevant deliveries and services are carried out according to a standardized process.

The following criteria are sometimes used for the basic qualification of new suppliers:

- Certification according to QM systems
- Standards available on the subject of compliance
- Information security requirements
- Requirements regarding occupational, health and environmental regulations
- Positive evaluation by the Central Purchasing Department in cooperation with Supplier Quality Department
- Positive financial information
- etc.

18. Supplier Evaluation Declaration (by Zollner)

As a matter of principle, we carry out comprehensive supplier evaluation once a year for strategic and selected suppliers. The result of the evaluation is communicated in written form at the beginning of the following year.

Criteria and weighting of the Supplier Evaluation

Hard Facts (80 %)

Soft Facts (20%)

criteria	Weighting in %
Hard Facts	
PPM on Q-notes	19
complaint rate	3
quality score	14
8D-report	4
quantity reliability	20
date reliability	17
supply availability	3
Soft Facts	
accessibility	3
reaction time	4
goodwill	3
engagement	4
price level	6

The classification results from the determined valuation ratios:

A supplier 100 - 86 points

B supplier 85 - 71 points

C- supplier 70 - 0 points

Our expectation towardssuppliers is to promptly eliminate identified weaknesses and independently initiate measures as well as actions that lead to an improvement in the evaluation results.

In the case of a C rating, an action plan is expected within a four-week period.

Please also refer to our Supplier Evaluation Guideline, which can be provided on request by the responsible complaints operatoror the central Supplier Quality Department.

19. Sub-Supplier Management

a) Risk Management

The supplier shall maintain a risk management system with regard to its relevant sub-suppliers.

b) Forwarding of Specific Requirements

It is the responsibility of the supplier to pass on or clarify specific requirements to the relevant sub-suppliers (for the supplier as well as for Zollner) to ensure the final component delivery to Zollner. This sometimes also includes minimum requirements with regard to documentation and traceability.

c) Change Management and Audit Access Rights

The supplier shall proactively request notification of changes, analogous to item 10, from its sub-suppliers and document them accordingly.
In addition, upon request, the sub-supplier shall within the scope of an audit grant the direct customer and third parties (e.g. end customers and authorities) access to all relevant areas and the corresponding documented information involved in the production and delivery of the products and services (analogous to point 2 last paragraph).

d) Supplier Evaluation and Supplier Development

The supplier also sets up an up-to-date supplier rating with the minimum criteria of delivery reliability and quality (complaints) for its relevant supply chain. This rating is updated by the supplier at least once per year.
This should be actively used in order to carry out at least a supplier development actvity (e.g. with action plans, supplier development programs, audits, etc.) to re-qualify the relevant sub-supplier to the accepted delivery quality or to further develop the supplier with regard to (increased) customer requirements.

e) Incoming Goods Inspection

Appropriate incoming goods inspections must be carried out at the supplier's premises for all deliveries from sub-suppliers, but, depending on the area of application (e.g. Aviation, Automotive, etc.) the deployment takes place, further requirements (e.g. Certificate of Conformance (CoC) or a factory test certificate) may be necessary. As minimum requirements the legal and normative regulations apply for the supplier.

f) Qualification Processes

Zollner expects its suppliers to have systems in place for the qualification of sub-suppliers and to implement a management of their sub-suppliers that ensures the quality of the products. The system used must be suitable to avoid errors in deliveries and services of suppliers. Suppliers shall ensure that their sub-suppliers are aware of and implement all customer, product, legal, regulatory and environmental requirements that apply to the design and are necessary to manufacture and supply materials and components.

20. Additional Requirements for Aerospace products

20.1 Verification of the production process

An initial sample test report is required for customised parts / drawing parts. In selected cases, this must be drawn up in accordance with EN9102. The form required in each case is specified on the order.

20.2 Prevention of counterfeit parts

Appropiate procedures shall be developed, implemented and controlled to prevent the use of counterfeit or suspected counterfeit parts in its products to ensure that they are not supplied to customers.

20.3 Cancellation of rejected products

Unusable products must be managed for customised parts / drawing parts in such a way that it is not possible to introduce them into the supply chain. E.g. through physical rendering unusable, proof of scraping.

20.4 Traceability

A process must be described and applied that ensures the traceability of manufacturing and testing processes (human, machine) and the material (serial number, batch, date code) oft he delivery item. If a Certificate of Conformity (=CoC) or higher quality documents are enclosed with the goods, a reference to the delivery note must be recognisable.

20.5 Retention periods

The retention period for quality-relevant documents and information is at least 15 years, unless otherwise specified. The client must be informed when this period expires or before documents and information are deleted.

21. Change history

V1.0 New initial creation; Minimum Quality requirements for Suppliers
V2.0: General Revision and addition of additional requirements for Aerospace

Global Procurement Quality-Team, 2024.04.19