



Release

These Guidelines apply to the companies:

Otto Vollmann GmbH & Co. KG
Vollmann (Sachsen) GmbH & Co. KG
N.I.E.R. Stanz- und Umformtechnik GmbH & Co. KG
SYNTEKS Umformtechnik GmbH

– hereinafter referred to as Vollmann Group –

These Quality Assurance Guidelines shall enter into effect upon their distribution following their signing by the persons named below:

Managing Director / COO Vollmann Group

MMB Vollmann Group

Thomas Erdelt, 1 October 2017

by proxy Manfred Graupe, 1 October 2017

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1. Preface

The ever-growing demands of the car industry are, to an increasing extent, also being borne by products from our suppliers and service providers. These Quality Guidelines have been defined in order to create a basis for the joint quality-related work between Vollmann Group and our suppliers and service providers. With this version, Vollmann Group is releasing a new issue of these Quality Assurance Guidelines for the delivery of externally manufactured and/or externally processed components, subassemblies and items as well as services.

These Quality Assurance Guidelines shall apply as a supplement to Vollmann Group's Terms and Conditions of Purchase.

2. Approval of Suppliers

By means of recognised methods of organisation, planning, control and monitoring, the supplier must prove that it shall ensure at all times that the products or services to be provided by it will be available and deliverable in conformity with the contract.

Only qualified companies whose quality management system has been successfully certified in accordance with the rules and regulations of national or international specifications or standards shall be appointed by Vollmann Group to manufacture products or carry out services.

In order to qualify as a supplier for Vollmann Group, the supplier shall maintain a quality management system that at least meets the requirements of the respective current standard according to DIN ISO 9001 and has been certified accordingly. Depending upon the size and structure of the supplier, the objective must be to obtain within a reasonable period certification according to IATF 16949 by an accredited certification company.

The classification and the certificate shall be proven to Vollmann Group. Once a quality management system has been set up, and is being maintained, by the supplier in conformity with the requirements of DIN ISO 9001 or IATF 16949, and this has been proven, Vollmann Group shall bring about the corresponding classification.

In order to satisfy the requirements of our environment, Vollmann Group expects its suppliers to observe the laws and regulations applicable in this connection and comply with the REACH Regulation and the End-of-Life Vehicles Directive. Moreover, Vollmann Group expects its suppliers and service providers to use energy-efficient procedures and processes. These criteria shall likewise be taken into account when procuring products and services.

3. The Supplier's Obligation to Apply the Quality-related Rules and Regulations and Observe Ethical Principles

In order to avoid defective performance from a qualitative and logistical perspective, the placement of orders with certified companies by Vollmann Group shall be subject to the supplier's QM system being maintained and being fully applied to the planning and realisation requirements for the handling of Vollmann Group orders in accordance with the requirements of the rules and regulations and in accordance with the obligations thus entered into by the suppliers' top management.

Furthermore, Vollmann Group shall, in the long term, only collaborate with suppliers who unequivocally vow to implement ethical principles.

Specifically, this means a clear commitment to heed at least the following points:

- respecting and observing human rights
- honouring the personal dignity of the employees and business associates
- preventing the discrimination of minorities
- preventing child labour
- observing the valid rules relating to working time and pay
- complying with the statutory provisions relating to environmental protection
- complying with the laws and regulations relating to health and safety at work

4. Quality Objectives

The supplier shall fundamentally commit to the zero faults target.

The supplier shall define internal and external quality objectives for measuring and evaluating the quality attained. In this connection, the following minimum requirements shall apply:

- ascertaining the internal and external fault rates on a ppm basis
- ascertaining the internal and external complaints by number
- ascertaining the internal and external cost of faults
- ascertaining delivery performance compared to the Vollmann Group factories

Together with the supplier, Vollmann Group shall agree upon quality objectives for products to be defined.

This objective shall not affect the supplier's liability for the warranty in respect of defects in delivered products or services. Rather, this quality rate shall form an operational limit. If exceeded, Vollmann Group shall have the right to demand corrective measures.

5. Quality Planning

5.1. Advance quality planning (AQP)

5.1.1. Customer requirements

For the purposes of independent procurement by the supplier, Vollmann Group undertakes to make available to the supplier, except for the statutory and official stipulations, all relevant specifications and stipulations, as well as the relevant standards or normative information merely named.

The supplier shall ascertain therefrom in due time the Vollmann Group requirements. These shall concern the product requirements, logistics requirements and quality-related requirements, as well as the non-specified requirements necessary for use of the product. Additionally, the supplier shall also ascertain the official and statutory requirements that are applicable to the product and are also relevant to the supplier's process.

Insofar as the supplier also receives from Vollmann Group the customer's specifications and stipulations, these shall, subject to the supplier's consent, likewise become part of the contract. Furthermore, the supplier undertakes to also bindingly pass on to its own suppliers the relevant requirements arising from these end-customer stipulations.

5.1.2. Producibility evaluation

As part of its own AQP, the supplier shall examine and confirm cost-effective and process-reliable producibility in accordance with the Vollmann Group requirements.

In the course of all its planning and processes and the execution thereof, the supplier shall observe the predefined Vollmann Group quality objectives as well as the environmentally relevant laws and regulations, in particular the Hazardous Goods Regulation and the EU End-of-life Vehicles Directive.

Participation of Vollmann Group representatives in the talks on advance quality planning shall not release the supplier from its overall responsibility for on-time process planning, realisation and control in conformity with the requirements.

5.1.3. Coordination / comparison of measurements

For all components and subassemblies procured externally, Vollmann Group shall carry out "preventative quality assurance" (AQP) with the suppliers.

In the case of complex components, the AQP process shall involve joint measurement coordination where the measuring orientation, method and procedure as well as - insofar as necessary - the measuring device are specified. In the course of the coordination process, it shall be specified who will produce, in pairs, the same measuring devices for Vollmann Group and the supplier.

In respect of components and parts to be measured via a measuring machine, it is essential that measurement comparisons be carried out and be agreed upon with Vollmann Group for tool-based components and parts before the tools are optimised. These comparisons shall be carried out in such a way that specified characteristics are measured using the defined measuring device (clamping operation) on one and the same part both at the supplier and at Vollmann Group.

5.2. Quality project planning at the supplier

5.2.1. Project management

The supplier undertakes to set up, maintain and control in an appropriate manner a project management system ranging from the planning phase for the supplier's products, components, subassemblies and processes to the approval of the initial sample test report or optionally to serial approval by means of approval of the initial sample test report and process acceptance by Vollmann Group.

5.2.2. Project schedule

The project schedule shall be shown in the form of framework schedules that, in terms of their content, correspond at least to the APQP procedure.

The capacities necessary for handling a project must, before the project begins, be calculated, checked in relation to the existing capacities and, where necessary, made available. The project capacity plan shall be drawn up to avoid possible bottlenecks during the implementation of the project.

Vollmann Group reserves the right to inspect this planning.

Throughout the entire project phase, the supplier shall, by applying preventative quality-assurance methods and tools, ensure that the products, components, subassemblies and processes satisfy the specification and the required quality standard. This shall also involve the supplier adequately testing new processes and approving them on the basis of set criteria prior to approval for serial use.

6. Initial Samples for Delivery from Serial Tools and Serial Processes

6.1. Process validation

Before the initial samples of components, subassemblies and processes are provided to Vollmann Group, the supplier shall produce a pilot series, which the supplier shall approve in accordance with its own process-related stipulations following fulfilment of the specifications of the components and subassemblies.

Therefore, the supplier shall provide to Vollmann Group samples produced from internally validated processes with internally approved products in accordance with the initial sample test report procedure VDA2 or PPAP. In both cases, samples shall be provided in accordance with submission level 3, unless otherwise agreed upon.

In its internal logistical planning, the supplier shall take into account that Vollmann Group must obtain approval from its customers prior to delivery approval, and warrants that no new or altered products from new or altered - or also existing - processes will be dispatched before written approval or deviation permission is received.

The sampling report shall invariably contain the ascertained measurement and test results relating to all product and specification characteristics, as well as proof of process capability in respect of representative key characteristics of the processes and products.

6.2. Initial samples shall be requested for the following reasons:

- new launch and new approval of an item
- resumption of series production of an item following a relatively long shut-down (> 1 year)
- change of process at the manufacturer
- change of drawing index in respect of the customer drawing
- change to an item (i.e. material, processes, process outsourcing, suppliers) by the manufacturer
- change of customer code number
- change of supplier(s)

The provision of samples shall take place without a request having to be made and without delay in all cases, unless an initial sample request has already been issued by Vollmann Group. The forms according to VDA or as per PPAP shall be used.

The cover sheet of the initial sample test report shall be fully filled in and must show the code number, designation, change status, change date and drawing number, unless the drawing number deviates from the code number.

6.3 Scope of the production of initial samples

The scope of the sample series shall depend upon the means of production and the production process. The sample series shall be manufactured under serial conditions and shall, in terms of its scope, depend upon the requirements for attaining the serial condition and upon the requirements for attaining statistical significance for verification of the specification characteristics in the measurement report.

6.4 Parts and processes subject to a special archiving obligation (A-parts):

All documents relating to parts subject to archiving shall be marked by means of the A-stamp.

The following documents shall be additionally provided together with the samples:

- in the case of a material subject to archiving: results of the in-house material test
- a statistical evaluation of the characteristics subject to archiving, including the following details.
 - at least 50 individual values (per nest/track), along with the target value and the tolerance
 - X-cross and s (unless otherwise required according to the drawing) or $Cpk > 1.67$

6.5 Requalification

Unless otherwise provided for in special quality assurance agreements, Vollmann Group expects component suppliers, for all series parts, to requalify all characteristics agreed upon in the AQP. This requalification is to take place within a cycle of one year, unless otherwise agreed upon in the AQP.

The requalification sample reports shall be shown to Vollmann Group's representatives on request. Products and parts for meeting the demand for spare parts shall be excluded from this requirement.

7. Series Production

7.1. Production

The supplier shall ensure that its processes are always in keeping with the state of the art. Potential for improvement shall be investigated and implemented on an ongoing basis.

Methods of statistical process control must be applied to the ongoing production. The capability of the processes shall be proven and be regularly monitored and evaluated. Insofar as Vollmann Group does not provide any information concerning the respective characteristics by means of which the capabilities are to be proven, the supplier shall select these on the basis of its experience.

Vollmann Group expects disruptions to the processes as well as quality deviations to be analysed, and corrective measures to be autonomously taken immediately.

Faults in the manufacturing process shall be fully recorded and be analysed. They shall be visualised in a suitable manner.

7.1.1. Deviations from the specification

Before products not meeting the respective specifications are dispatched to Vollmann Group, special written approval shall be obtained from Vollmann Group. This special approval shall be sent to the supplier exclusively via Vollmann Group's quality assurance division.



7.1.2. Special characteristics and retraceability

In principle, all product and process characteristics are important and need to be adhered to. Special characteristics, functionally important and process-critical quality characteristics as well as characteristics requiring special verification shall need to be specially taken into account, as deviations in the case of these characteristics could, to a particular extent, affect the product safety, service life, assembly capability, functionality or quality of the subsequent manufacturing operations, as well as compliance with the statutory provisions. They shall be specified by Vollmann Group via customer drawings and within the framework of the AQP and/or shall ensue from the supplier's risk analysis, e.g. from the product and/or process FMEA.

Special characteristics comprise:

- characteristics requiring special verification
- functionally important characteristics
- characteristics important to the processes

In its own drawings or customer drawings made available, Vollmann Group shall designate the special characteristics in the following manner:

BM	Meaning / interpretation	FMEA-CC
	<ul style="list-style-type: none"> • danger to life and limb and/or breach of the obligation to comply with statutory provisions • possible impairment of safety and/or breach of the obligation to comply with statutory provisions 	B = 9 - 10
	<ul style="list-style-type: none"> • failure of main functions, considerable disruptions to production, loss of primary functions • restriction of main functions, minor disruptions to production, reduced performance capability 	B = 7 - 8
BM	<ul style="list-style-type: none"> • special characteristic, not of a "CC" or "SC" nature, optional entry for identification purposes 	B = 1 – 6

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"Products and characteristics requiring special verification" are understood to be products whose characteristics considerably affect product safety or compliance with statutory provisions. In view of product liability, a corresponding risk is to be expected in this respect.

Characteristics marked "CC" or "SC" on the drawings provided shall always be subject to a special archiving obligation for 15 years following prohibition of the parts.

The supplier undertakes to install a corresponding system for the handling of products and characteristics that require special verification.

The content of the verification must meet the requirements of VDA Volume 1 and be written in such a way that the due diligence exercised can be proven in the event of a damage claim (proof of exoneration).

Traceability for all products or services shall be arranged in a way that ensures that delivery data are clearly allocated to the production and test batches. It shall be ensured that there is a well-functioning derivation system up to the subcontractor.

7.2. Evaluation of suppliers

Vollmann Group carries out an evaluation of supplier performance at regular intervals.

In this respect, the following points are evaluated:

- number of BAs
- proportion - number of BAs/number of deliveries
- proportion of statements outstanding
- PPM rate
- delivery reliability

The classification shall be in classes A-C, with the corresponding consequences.

Class	%	Measures
Class A	95 - 100	Enquiries and new orders continue to be made.
Class AB	80 - < 95	Enquiries and new orders continue to be made.
Class B	60 - < 80	Request for an action plan with improvement measures, if the supplier is classified with a "B" for two evaluation periods in succession. Enquiries continue to be made. New orders only in agreement with the quality assurance division. Taken into account during the audit planning of supplier audits if the supplier retains the status "B" for longer than 24 months.
Class C	< 60	Blocked for new orders and enquiries. Request for an action plan with improvement measures. Scheduling relating to the process audit according to VDA 6.B3: If an "A" classification is given again in the subsequent evaluation, an audit may be refrained from, subject to agreement between the purchasing division and the quality assurance division, or a self-audit may be reverted to.
> 1x class C	< 60	Use of the escalation model until withdrawal of the parts and exclusion as a supplier.

If energy services or products or facilities that considerably affect the use of energy are procured, the energy efficiency evaluation shall also additionally be included in the general supplier evaluation.

8. Handling of Complaints

Vollmann Group shall limit the incoming goods inspection under Section 377 *HGB* [German Commercial Code] to openly visible defects and evident transport damage. Further tests shall be carried out in the course of the customary business process as customary in the car industry. Defects subsequently discovered shall be reported to the supplier without delay following their discovery.

Vollmann Group shall issue a complaint report for every delivery deviating from the predefined technical rules and specifications. Such complaint report shall have the status of a notification of defects.

Delivered parts complained of by our customers as being a 0 km or field failure shall also be included. The Vollmann Group complaint reports shall be replied to within 24 hours by means of an initial written statement that is to include measures immediately taken. A final statement shall be issued within 5 working days. If this is not possible for certain reasons, the supplier shall inform the respective quality assurance division of Vollmann Group, stating a realistic deadline. Each statement must relate to the report issued. Collective statements relating to multiple complaint reports shall not be accepted by Vollmann Group.

The supplier's statements concerning complaint reports must be drawn up in 8D format. It is essential to quote on every statement the number of the corresponding Vollmann Group complaint report as well as the date.

If a process has not yet been completed as a result of a statement or has possibly been rejected by Vollmann Group's quality assurance division, a revised version shall be sent by the supplier without a request having to be made. The revision of the statement in the 8D report shall be brought about by the supplier - in agreement with the quality assurance officer in charge - by the time when the procedure is completed. The decision on this shall be incumbent upon Vollmann Group.

Vollmann Group reserves the right to inspect on site, also accompanied by a customer, the implementation and effectiveness of the measures presented in the 8D report.

9. Damages and Recourse

If, as a result of deliveries not conforming to the terms and conditions, necessary costs are incurred upon Vollmann Group for maintaining delivery capability or for exchanging or scrapping non-conforming products or for the Vollmann Group customer's demands arising for such reasons or from feedback or a recall, Vollmann Group shall have a right of recourse on all relevant legal bases.

The course of action shall be agreed upon between the parties concerned in each individual case. For potential claims for performance that Vollmann Group may be entitled to for the aforementioned reasons, the supplier shall take out and maintain insurance cover corresponding to its credit standing.

10. Scope of Application of these Quality Assurance Guidelines

In terms of subject-matter, the provisions of these Quality Assurance Guidelines shall apply to the entire existing and subsequent range of deliveries and services as well as to the subsequent change statuses, unless new quality assurance guidelines have been issued. Deviations or agreements contrary hereto shall, in each individual case, be defined in the course of advance quality planning (AQP) talks between Vollmann Group and the supplier and shall take precedence over the provisions laid down herein.

In terms of territory, the provisions of these Quality Assurance Guidelines shall apply to all companies and sites of Vollmann Group.

11. Provision Concerning Changes

Changes desired by Vollmann Group or the supplier in the general course of business shall require a mutual written agreement.

12. Binding Nature of these Quality Guidelines

These Quality Guidelines supplement Vollmann Group's Terms and Conditions of Purchase and are, therefore, of a contractual nature.

If the supplier does not accept these Quality Assurance Guidelines, or parts hereof, any nullifying effect in respect of these Quality Assurance Guidelines, or parts hereof, shall require the submission of a written statement of reasons by the supplier in order to thus rule out misunderstandings and enable special measures to be agreed upon and/or implemented.