Guidelines for Suppliers

of

FREUDENBERG FILTRATION TECHNOLOGIES SE & Co.KG

Contents

Preface

Our reputation and position in the global market is essentially determined by the quality of our products as well as by our competitiveness. Both, quality and environmental compatibility of deliveries have an immediate effect on our products. We therefor make the high demands, as set forth in this guideline, on the management system and the processes of our suppliers, contractual partners respectively.

This guideline will contribute to avoiding quality problems, and ensuring an effective co-operation between Freudenberg Filtration Technologies SE & Co.KG and its suppliers. Further, it will help reducing costs, ensuring environmental compatibility and sustainability of the products and processes, will minimise risks and meet customer and market requirements as well as to continuously complying with the laws and regulations.

Freudenberg Filtration Technologies SE & Co.KG expects its partners to make zero-defect supplies which meet the conditions stipulated in purchase agreements, irrespective of whether these deliveries will be performed by the supplier or its sub-suppliers.
This means a 100% observation of delivery commitments with regards to quality, delivery dates, and delivery volume.

The suppliers' acceptance and adherence to these guidelines represents, in addition to complementary agreements concerning the quality assurance, the prerequisite for a co-operation with Freudenberg Filtration Technologies SE & Co.KG. It is an integral part of Freudenberg Filtration Technologies SE & Co.KG terms and conditions of purchase and an additional part of the purchase agreement.

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1. Integral Quality Management

Our customers are well aware of the terms “Quality” and “Environment”. The integral management system of Freudenberg Filtration Technologies SE & Co.KG, referred to as FFT below, is oriented towards the EN ISO 9001, EN 14001 and OHSAS 18001 and meets the requirements of IATF 16949, specific to the automotive industry as well as further specific demands of automotive customers.
FFT expects from its suppliers the adoption, retention and enhancement of an up-to-date and effective management system in order to hence create the basis for the manufacturing of high quality, competitive products.
For the automotive sector a certification according to EN ISO 9001 and EN ISO 14001 is mandatory.
The requirements IATF 16949 are to be met.

The duties of the suppliers include:

- Employment of qualified staff
- Close co-operation during the development process (development supplier)
- Selection of qualified and reliable sub-suppliers
- Use of products and services that meet set requirements
- Production according to valid technical documentation
- Fulfilment of quality characteristics and proper function
- Documentation and evaluation of quality data
- On-schedule and zero-defect supplies of products and services
- Spare handling of resources and avoidance of ecological damage during production and usage

Furthermore, the continuous development of the supplier’s management system is imperative. Emphasis is to be placed on:

- Continuous improvement
- To further defect prevention
- To increase reliability and process capability within the value added chain
- Effectiveness of the management system
- Securing the compliance with relevant laws and governmental regulations

The verification of a well functioning quality management system will be established by the supplier itself via periodical in-house audits. If necessary, qualified FFT staff will, after agreement with the supplier, satisfy themselves as to the effectiveness of the supplier’s QM.
The supplier is solely responsible for the quality of products and services. He knows the functions of the supplied products and processes. This is also applicable if it is FFT deciding on the sub-supplier and components.

Freudenberg Filtration Technologies SE & Co.KG prefers suppliers certified according to EN ISO 9001 and EN ISO 14001.

The certification according to EN ISO 9001 is obligatory in the automotive industry. Additionally we foster the advancement of our suppliers according to IATF 16949 requirements.

1.1 Quality Assurance at the Sub-suppliers

The supplier must ensure that its sub-suppliers maintain a functioning management system as well. The supplier shall safeguard a continuous quality assurance from the development of a product, during its usage up to the end of its life cycle. The supplier is obliged to ask for the same from its own suppliers. The supplier shall convince himself that the products and services obtained by sub-suppliers meet the requirements agreed upon. This requires sampling, releases for series production as well as inspection of incoming goods.

2. General Information

2.1 Capabilities

The series production shall be performed by machines of which the capabilities have been verified. Suitable methods such as statistical process control (SPC) must be employed with the objective of permanent improvements in order to inspect, control and assess the production process. For the evaluation of the process capabilities it is necessary that the process takes place under statistical control, i.e. all systematic influences must be known and controllable.
For **important and critical** product and process characteristics that have a crucial influence on product quality, inspections of machine and process capabilities have to be carried out.
The following capability indices are requested:

- Machine capability $c_{mk} \geq 2$
- Provisional process capability $p_{pk} \geq 1{,}67$
- Ongoing process capability $c_{pk} \geq 1{,}33$

Up to achieving the capability the process capability must be secured via suitable test scenarios (e.g. 100%-inspection).

2.2 Capabilities of Measuring and Test Equipment

The supplier has to ensure the product quality by means of suitable test equipment.
The capabilities of measuring and test equipment are to be documented and be submitted to FFT upon request.

During the planning stage and before the use of test equipment the following must be observed:

- Executing check-ups of test equipment capabilities for *specific characteristics**, in line with the MSA-manual of AIAG / *also see *VDA, volume "Product Design"*
- Considering measurement uncertainties according to EN ISO 10012
- Identification
- Determining testing and calibration intervals as well as calibration methods (national, international standards)
- Documenting of results as evidence of control (history)
- Appropriate handling, protection and storage
- Evidence of a system of test equipment and test facilities for periodical checks ensuring that defect facilities will be detected at an early stage and be no longer used.

2.3 Statistical Process Control (SPC)

FFT is committed to stable and continuously capable processes. The same is expected from its suppliers. The *statistical process control (SPC)* is a suitable method that the supplier has to give evidence of via the ***characteristics particularly*** identified in the drawings (check dimensions/measurements). FFT reserves the right to call for up-to-date and previous data for all key characteristics of delivered parts of a series production. Such arrangements also and explicitly apply to deliveries made for sampling/initial sampling (also see **5.4**).

2.4 Quality Analysis

The execution of quality analysis is important to the permanent improvement of product and process quality. The detection of causes of failure and keeping statistical records are indispensable for a modern quality assurance.
The detection of causes of failure as well as documenting the results have to be performed in-house during the entire production process and especially in cases of customer complaints. After the assessment of a sufficiently large number of data important conclusions can be obtained for process improvements. These assessments have to be executed according to the requirements posed by the respective customer demand.

2.5 Traceability

The supplier has to provide appropriate methods of traceability of specifically requested characteristics or properties. On request the verification (*inspection certificate 3.1*) has to be made available within **24 hours**.
In case of a detected defect the traceability must be such that the quantity of faulty parts/products can be narrowed down. The supplier is obliged to ensure the traceability of the delivered goods. The degree of limitation has to be established after consultation with FFT, taking product-related specifications into account.

2.6 Parts History

The supplier has to ensure that a complete and meaningful history record should be kept for each product delivered to FFT. It should include information about tool amendments and adjustments, process optimisation, changes of indices, new material used and any other relevant changes or modifications. The history must be made available on request as well as at sampling stage. It must be kept at hand for 5 years after manufacturing. **15 years for DmbA-parts** (see *VDA, volume 1*).

3. Technical Documentation / Requirement Specification

It is always the latest valid technical documentation that FFT provides the supplier with, which serves as the basis for judging the quality of products and services.
The relevant technical documentation include for example:

- FFT CAD data (2D/3D)
- FFT drawings
- FFT specifications/order instructions
- FFT test specifications/measuring method
- FFT engineering standards and other applicable regulations
- Material specifications (e.g. "**REACh**")
- Customer standards and specifications
- Corresponding documentation of suppliers bearing the FFT mark of approval
- List of stated objectives/requirement specifications
- Procedure instructions
- Other requirements

Generally accessible documents (e.g. EN-, ISO-, VDI/VDE-, ASTM-standards, BImSchG, WHG, REACh (Europe) and other regulations and laws are to be provided by the supplier from the relevant offices and associations.

The supplier shall ensure by appropriate means that production will always be performed at the latest released status of change. Measures taken in-house and at the sub-suppliers will serve as a basis for the above. The supplier shall arrange for all documents, which become invalid due to a change, to be removed from the moment the change takes effect. The supplier will inform FFT in writing about any documents unclear or seeming to be incorrect to him.
Change requests of the supplier regarding the technical documentation provided by FFT are subject to the prior written approval by FFT, even if they concern stipulated purchasing sources.
Design-, recipe-, pre-product-modifications to the supplier's products also require the written approval of FFT prior to the introduction thereof.

4. Product-/Process Development

4.1 Development / Design

To reduce throughput time and minimise product and development costs FFT is increasingly relying on "Simultaneous Engineering" during the development of new products. A supporting method in this context is the project management.
At an early development stage the interdisciplinary project team designates the supplier as a partner, sets down the project goals relevant to him, and incorporates its activities into project planning.
In joint project meetings and design reviews the supplier shall contribute with his know-how to finding optimal solutions.
The achievement of agreed general aims, quality, cost targets and target dates is therefor a top priority for the supplier and development partner.

4.2 Quality Planning

4.2.1 Quality Planning / Development Phase

If products and services are to be developed and engineered by the supplier himself, he will be responsible for the profile of requirements concerning both product and processes.
Among others, this includes carrying out a failure mode and effect analysis (engineering-/ process FMEA) as well a conclusive determination of material requirements and quality-/ testing-features.

4.2.2 Quality Planning at Pre-production Stage

We expect from our suppliers that all relevant activities of relevance to facilities, systems/plants, technologies, methods, material, personnel, and transportation are properly planned, documented, and traceable in order to meet the required process and product quality.

4.2.3 Quality Planning / Series Production

The supplier shall carry out a systematic project planning within which at least the following aspects have to be considered:

4.2.3.1 Producibility Evaluation of Products and Services under Series Production Conditions

This means observing the minimal requirements of all given technical rules and instructions, the **compliance with legal requirements** during the processing and in usage as well as the achievability of the planned quantity at the requested quality with the deployed production facilities and at minimised costs.
All products and services as well as all materials used for the production must comply with the statutory requirements concerning restricted, toxic, and hazardous substances (REACh and GHS). This has to be verified in an adequate manner.

The Consignee confirms the "Producibility" by means of accepting the FFT order.

4.2.3.2 Process-FMEA as a Risk Analysis of the Production and Test Processes

If the supplier does not develop himself, he will be provided with all data, such as functionally important product characteristics, effects and implications of defects by the Design-FMEA of FFT, including a mark-up drawing. In case of excessively high-risk priority numbers, design and/or process modifications have to follow.

4.2.3.3 Production and Test Planning

The supplier keeps a system for the co-ordination and definition of

- Production and test operations
- Important functional product and process characteristics
- Test procedures/methods and measuring and test equipment
- Product identification, packaging, and shipping
- Required documentation
- Procurement of products and services from sub-suppliers
- Purchase and procurement of products and production facilities

Important or critical characteristics shall primarily be selected from the design- or process-FMEA. These characteristics will be agreed with the supplier in line with the advanced quality planning process (AQP). Those, as well as production-critical characteristics of the process shall be used for the statistical process control. Important characteristics (attributive/variable) that cannot be measured by the supplier require a written approval by FFT.
The definition of the scope of test will be guided by the degree of achieved process capability, the significance of the individual characteristics as well as the possible effects of failure.

4.2.3.4 Evidence of Capabilities

see 2.1 Capabilities (2.2 measurement and test equipment)

5. Initial Sampling / Production process and product approval (PPA)

5.1 General Information

The purchase department will request initial samples from the supplier by placing an initial sample order with the objective of release of both products and processes by FFT.
The sampling will occur solely on the basis of released drawings and/ or relevant specifications.
Acceptance or rejection of the sampling will be made by FFT's quality engineering. A handling fee of 250 € will be charged in case of faulty sampling.
FFT will order the amount of initial samples quoting the delivery deadline. The procedures shall follow the requirements as stipulated by *VDA volume 2, PPAP* respectively.
The basis for production and testing of initial samples are FFT-drawings, and –requirements as well as quality related requirements as contractually defined (e.g. advanced quality planning "AQP"). Initial samples are products entirely produced with series compatible manufacturing resources and under series compatible conditions. Prior to commencing series deliveries of new or modified parts initial samples and the certificates verifying the capabilities thereof must always be submitted at an agreed date unless otherwise agreed and confirmed by FFT in writing.
The supplier is responsible for the realisation and documentation of the sampling of initial or modified products. The acceptance of same will be subject to FFT's counter-checking or a joint inspection. These requirements also

apply for sub-suppliers. Series delivery cannot commence before an initial sample release has been issued in writing.

Chemical raw materials are subject to a separate release procedure performed by FFT

5.2 Definition of Terms

Initial samples:
Parts, technical units and other production material entirely produced with series compatible manufacturing resources and under series compatible conditions, according to *VDA volume 2 ("PPA")* or *PPAP manual ("PSW")*.

Other samples according to DIN 55350 – Part 15:
Any sample not fulfilling the above stated conditions, e.g. "provisional samples", special samples, or prototype parts. Such samples, the corresponding delivery note and test reports must be clearly marked (e.g. stickers reading "trial samples", "test report") and be separately delivered (no collective consignment). **They do not serve as release for series production.**

PPA-Report / Part Submission Warrant (*PSW**):
Compilation of all target data as defined during the PPA-procedure as well as actual data established at the inspection of dimensions, materials, functionality, and test of processes (see chapter 2.1/2.2) including the assessment of the results. The PPA-report for the initial samples and further documents shall be added to the initial samples (see VDA, *volume 2* / "Selecting submission level").
*With respect to the automotive industry the test report for initial samples will be issued upon request according to "PPAP" and/or customer specific requirements (also see **5.3**).

Tests for initial samples have to be performed in the following cases

- New parts
- Modifications to characteristics (with new revision status)
- Production modifications (new tools, machines, fixtures, manufacturing methods, etc.)
- After a lengthy production stand-still (e.g. for longer than 1 year)
- After relocation of the production site

Further reasons for samplings see VDA, *volume 2* or *IATF 16949, chap. 8.5.6*.

Additionally important for an orderly initial sampling

- A clear identification of the initial samples as "initial sample"
- A separate delivery of the initial samples / no collective consignment
- Positioned drawings/specifications
- A delivery note identified as "initial samples"

Deliveries of raw materials / chemicals should further include

- Relevant safety data sheet in accordance with regulation EU **1907/2006** (REACh regulation) and EU **1272/2008** (CLP-regulation)
- Relevant processing instructions
- Relevant technical data sheets
- Test certificates
- Delivery note
- Further regulations (e. REACh, GHS)

5.3 Production process and product approval performed by the Supplier

Before carrying out the PPA-/ PPAP-procedure, the supplier shall agree the steps of requirement/specification with the appropriate partner at the quality engineering. If not agreed otherwise documents and samples are required according to the following steps of requirement/specification:

- "level 2" according to ***VDA, volume 2***, or
- "level 2" according to *PPAP-manual* or
- differing on request

5.4 Execution and Scope of Production process and product approval

Any delivery has to include, together with a test report and, if relevant, a description of the modification in form of a **history of prototype parts** up to the point in time of initial samples release. The parts belonging to a consignment should have an appropriate identification allowing a clear backtrack to the parts' history. The supplier shall ensure that substances of his products will be entered into the IMDS.

For those substances identified in the drawing as “critical” (“Positioning”) the evidence of process capability at the initial sampling has to be rendered unless agreed otherwise at the quality planning meeting ($p_{pk} \geq 1{,}67$ or according to a written agreement). The ongoing process capability must be verified by $c_{pk} \geq 1{,}33$ (also see chapter 2.1 “Capabilities”, 2.2 “Measuring and test equipment capabilities”).
When planning a modification of a product or process the supplier is obliged to inform FFT, for example by submitting a schematic description of the production process (Flowchart) as well as a production control plan. At any modification FFT is expecting a written announcement well in advance and to be sent to quality engineering indicating the expected date of receipt of the first modified products. Furthermore, the first three deliveries of modified goods, or goods manufactured with modified processes must be additionally identified on the delivery note and on the goods.

5.5 Inspection of Initial Samples by FFT for Product and Process Validation (PPA)

After receipt of the PPA-report for initial samples and the initial samples themselves FFT quality engineering will conduct own inspections where appropriate. The test result will be mentioned on the cover note and sent back to the supplier.

5.6 Despatch of Initial Samples

The supply of initial samples will be carried out on the basis of the order of initial samples.
Place of unloading: Addressee of the initial samples plus all relevant documents is the quality engineering.

6. Quality Assurance during Series Production

6.1 General Information

Deliveries of series may only be carried out after the release of initial samples. The release will occur by returning the evaluated PPA cover sheet. Special releases of initial samples not yet assessed or not yet positively appraised need to be identified by the supplier as “special release” on the packaging.

6.2 In-process Testing

In case of process disturbances and non-conforming quality as well as in case of sampling tests with negative results, the non-conforming parts must be isolated from ok-parts, failure causes be analysed, improvement measures be commenced and checked with regard to their effectiveness.
The final tests to be performed shall be oriented towards the capability of the process. The supplier ensures that only such products will be delivered that are conform with the specifications.

6.3 Capabilities

See chapter 2.1 “Capabilities”, 2.2 “Measuring and test equipment capabilities”

6.4 Documentation / Test Records

The results of quality surveillance (process parameters, product characteristics) as well as troubleshooting measures and remedial action taken shall be systematically recorded in writing. The minimum mandatory retention period for these records (result related data) is 10 years. The extended retention period for processes, products and characteristics that are subject to particular archiving regulations (safety relevant parts), is 15 years.
The supplier shall grant FFT the right of access to such records (e.g. FMEAs, SPC, inspection charts, etc.). In particular cases FFT allows the supplier to inspect its test records accompanying the supply of series (e.g. test certificates according to EN 10204/3.1), also see chapter 13 ”(Safety) Parts subject to Documentation “critical characteristics”)”.
The supplier is committed to meet specific requirements of the end customer (e.g. from IATF 16949).
The records must be disclosed upon request.

6.5 Packaging Instructions

Deliveries of series have to follow FFT’s packaging instructions. See chapter 7 for further information.

6.6 Product Requalification

The supplier is committed to check once per year if his deliveries are conform with FFT’s specifications (including dimensions, material, capabilities, legal requirements, environment)
Any non-conformity with these specifications has to be agreed in writing by the supplier and FFT.
On request, specific evidence must be provided or access secured.

6.7 Inspection at Receipt of Goods at FFT

FFT will inspect supplied goods at receipt with respect to identity and quality only (identification check) as well as for obvious and visible transportation damages. In case of non-conformity evidence FFT will immediately state the claim. If FFT, whilst pursuing the standard business procedures, will detect quality shortcomings of the consignment FFT will notify the supplier instantaneously.
Both parties agree that the supplier will undertake the final inspection and, at the same time, waive any objection due to belated notice of effect according to HGB § 377 or similar regulations and commercial laws. The supplier is aware of the fact that such understanding can result in the loss of his indemnity or product liability insurance according to liability insurance conditions. The supplier has confirmed that this understanding has no effect on his coverage of the above mentioned insurance.

7. Handling, Storage, Packaging, Preservation and Despatch

In order to prevent quality concerns, damage, or loss the supplier shall establish a procedure, approved by FFT that is designed to ensure proper handling, storage, packaging, conservation, and despatch up to the usage of products and services at FFT.
Parts identification during production up until despatch shall in particular ensure the identification of delivery batches and hence **traceability** as well as excluding mix-ups.
Each container despatched to FFT shall be provided with the goods accompanying document that is clearly visible from the exterior (preferably ***VDA 4902***).

Delivery notes, goods accompanying notes (e.g. mill test report, MDS / SD), and invoices shall be identified completely and include the following information:

- Supplier / Manufacturer / Country of origin
- Recipient / Place of Unloading
- Order Number and Position
- Material ID-Number (as stated in the order)
- Parts Description (as stated in the order)
- Quantity and Quantity Units
- Batch Number
- Drawings and Specification Numbers with revision Index (if stated in the order)
- Identification of hazardous Substances according to REACh and GHS (H-/ P-phrases)
- Storage Conditions
- Transportation Regulations, e.g. GGVS/E, ADR, RID
- Expiry Date, in case of Goods with a limited Storage Period
- Processing Specifications

The supplier is obliged to only use packaging that is environmentally friendly and enhancing safety. The products and services shall be delivered in **homogenous lots** and with clean and undamaged packaging. If FFT requests batch related test certificates (e.g. mill test report according to EN 10204 / 3.1) in their orders or technical documents these have to be attached to the delivery.
The supplier has to keep a system to monitor raised freight costs (e.g. extra tours) and make these records accessible to FFT upon request.

8. Complaints, faulty Products

8.1 Basic Principles

Should FFT find products to be non-conforming, the supplier will immediately be informed. Prompt consultation with the supplier concerning return of goods/replacement delivery or reworking measures/sorting as well as cost arrangements will follow. The costs incurred in the preparation of a test report are based on an FFT-internal cost entry, which is charged to the supplier in a timely manner. FFT must promptly be informed in writing about the failure causes and immediate measures.
The supplier is committed to eliminate defects short-term and to give evidence about the effectiveness of the remedial action. The implementation of the **8D-method** is mandatory. The initial reaction has to come within **24 hours**. Any accepted alternative to the above, restricted to a certain number of parts or a fixed delivery period has to be obtained from FFT in writing, unless it concerns products that are not conform with particular specifications.
Reworks and corresponding processes that could change the characteristics of FFT products must be subject to approval by FFT's quality engineering.

In cases where the supplier detects defects of products, a part of which may already have been delivered, the quality engineering needs to be informed immediately. The same applies for undertakings of corrective actions (also see **8.2)**.
Should a replacement delivery not be feasible in due time the supplier shall bear the costs for the required measures necessary to ensure the contractually agreed deliveries to FFT customers (e.g. sorting costs, exceptional releases, production modifications, quality analysis, rework, treatment, assembly, disassembly, extra deliveries, etc.). FFT will, if possible, agree such measures with the supplier. However, FFT shall reserve the right to decide on necessary measures in order to correspond with production and delivery agreements.
In case of complaints leading to a production standstill or bottlenecks at FFT, the supplier is requested to immediately separate the faulty batch at FFT at his expenses and to replace it with faultless and clearly ok-marked subsequent deliveries.
This particular identification has to be maintained until the end of the complaint procedure (closing “8D”) plus three deliveries thereafter.
In case of shortfalls occurring due to non-conformities with the fixed deadlines or quantities the supplier is obliged to ease such situations with all possible means at his disposal. Additional shifts, extra tours, airfreight deliveries, etc. shall be considered.
Note:
If, despite all efforts made by both parties in order to limit/avoid shortfalls (regardless of type of shortfall) that can be traced to defect products having been delivered, the supplier will be held liable for compensation. This also equally applies for any faults made by suppliers and sub-contractors that he had appointed for producing the parts.

8.2 Defect Products at the Supplier

If any faulty products will be established at the supplier they have to be isolated from the other batches, be identified as “not ok-parts”, and be stored separately.
Should any faulty part become part of a consignment FFT shall be informed immediately.
Supplies with accepted non-conformities have to be clearly identified on the delivery note and the packing units.

8.3 Rejection

8.3.1 Possible Reasons for Rejection

Rejection of goods will occur in the following cases:

a) *Delivered parts are not conform with specifications or valid drawings.*
b) *Capabilities of important characteristics are not available and there is no evidence of a 100% control.*
c) *Initial sampling has not been made and a non-conformity agreement does not exist.*

A rejection becomes effective as per test report.

8.3.2 Reaction to Rejections

Rejections always represent a critical procedure asking for an appropriate reaction.
FFT is expecting a preliminary statement indicating initiated immediate measures within 24 hours after receipt of rejection. Unless otherwise agreed the supplier shall submit a written final statement within 5 working days revealing remedial measures and actions in order to avoid repetitions.
The statement has to follow the format (unless otherwise agreed) of “8D-reports”. In case of doubt FFT’s Supplier Management has to be consulted (Corporate Function QHSE).

8.4 Call Backs of End Products

The supplier commits himself to assistance with respect to defect analysis, cost sharing, and provision of staff when it comes to call-backs or other courses of action concerning end products.

8.5 Escalation Procedure in Case of Repeated Complaints

In cases of repeated complaints caused by the suppliers the following escalation procedure shall be applied:

Step 1: Discussions at FFT with the suppliers including the submission of a catalogue of measures. Where appropriate *FFT’s Supplier Management* will call on the supplier at his expenses.

Step 2: 100% inspection of incoming goods at FFT for the three subsequent consignments by the supplier’s staff or an external service company appointed by the supplier.

Step 3: 100% inspection of outgoing goods at the supplier by an external service company (possibly also by FFT staff) at the supplier’s expenses until 2 weeks after problem elimination (maximum: 3 months).

Step 4: The supplier is obliged to appoint an external expert to eliminate the quality problems having occurred at his premises.

Step 5: The supplier will be considered for placing future orders only after a successful system/process audit, performed by the FFT Group at the supplier's expenses. Minutes of the meeting as to the discussions with the supplier that concern the escalation procedure shall be written and signed by the supplier.

9. Maintenance

The supplier shall ensure that important production facilities (machines/units) are serviced effectively, in a planned manner, and comprehensively within a defined scope and at defined intervals. He shall also keep records of maintenance work performed (history).
Forward looking and preventive maintenance measures according to VDI-guidelines 2890 and established standards/guidelines should be a part of the above.

10. Suppliers Appraisal

10.1 Supplier Self-supplied Information

Irrespective of the supplier's system status, FFT is requesting the supplier's own informative appraisal by means of a questionnaire. This will serve as basis for a system and process audit to be performed by FFT when needed.
Preconditions for being accepted in the **list of approved suppliers** are

- Sufficient system status (supplier's own information including certificates)
- Analysis of potential with positive results, if required
- Successful system- / process audit, if needed

10.2 Supplier Appraisement

10.2.1 System-, Procedure- / Process- and Product Audit

The supplier grants FFT and, if needed, its customers, to perform jointly agreed system audits and have access to available documents (specifications) and records (evidence).
System audits are carried out by FFT to qualify the supplier's quality management on the basis of *VDA, volume 6.1 "QM-system audit".* In special cases customer-specific questionnaires from FFT will be used.
In general, a system-/process audit is carried out

- for new suppliers, if required
- after major changes (QM system, production site, etc.)
- when deterioration of delivered goods occur
- to confirm the effectiveness of the (quality-) management system (repeated-, follow-up audits)
- after a 3 year period, if needed (key suppliers)

***Audit intervals*:** After an appropriate period of time for the implementation of the necessary measures a re-audit or follow-up audit is performed for suppliers classified as "B" or "C". Apart from this the audit interval depends on the individual situation.

FFT has the option to refrain from such a system-/process audit under one of the following preconditions:

- Copy of a valid certificate (e.g. EN ISO 9001) of an accredited association
- Copy of a complete audit report including the catalogue of the agreed measures of important customers and/or certifiers.

Certificates or audit reports must not be older than three years. To avoid queries the relevant certificates and audit reports are to be sent to the FFT purchase department.

Procedures-/ Process- and Product Audits are, in general carried out

- when introducing new products or modified products
- to improve quality
- after deterioration of supply quality

The evaluation mode of *VDA volume 6.3* should be employed.
The supplier shall be informed about the audit results.

10.3 Handling of Complaints

In case of complaint of components:
- if the goods are picked up and checked by the supplier, only the defecgtive pieces found at FFT will be claimed (e.g. 5 pieces at incoming inspection)
- if the goods are checked by FFT, the entire quantity / delivery will be claimed

For complaints on the packaging, presentation of goods, the delivery note, etc.
- the entire quantity / delivery will be claimed.

In case of incidental / auxiliary goods, it is decided individually which amount is used for the PPM evaluation.

10.4 Assessment of the Supply Performance

By following *VDA volume 2* "*Assurance of supply quality"* a comprehensive assessment system shall be established in order to appraise continuous supply quality at the suppliers chosen by FFT in order to continuously evaluate the supply performance on the basis of the following criteria:

- **Supply quality** (ppm)
- **Supply reliability** (deadlines, quantity – target 100%)

The classification into three categories will be based on defined quality indicators (QI):

Category		QI
A-Supplier	min.	95
B-Supplier	below	95 - 80
C Supplier	below	80

With respect to the suppliers classified as "C", FFT will review, after receipt of a detailed statement concerning quality improvements, if the business relationship should be retained.

The supply performance will be evaluated at regular intervals and results thereof will be made available to the supplier at least once a year.

If requested the supplier shall have access to the above mentioned assessment system.

10.4.1 Additional Assessment of Key suppliers

For securing the present and future supply performance the key suppliers to FFT are of particular importance. Among other things, these suppliers shall additionally be assessed inhouse by a cross-functional team, co-ordinated by FFT's purchase department, and the following criteria be applied:

- cooperation/ communication
- strategic orientation
- Innovation
- Delivery reliability

10.5 Discussing the Individual Assessments – Supply Development

Unsatisfactory supply performance (delivered quality / supply reliability) will call for discussions with the supplier including a joint definition of suitable measures and target dates as well as the evaluation of the implementations and effectiveness of the measures thereafter. Furthermore, unsatisfactory audit results shall lead to determination of measures, **development programme.**

11. Agreements concerning Quality Assurance

FFT reserves the rights to set down in writing agreements with key customers regarding organisation, processes, communication, and rules of conduct ("QSV" quality assurance contract).

12. Product Assurance / Product Liability

Shortcomings in product safety may lead in liability claims against the supplier. Therefore the supplier's quality management system shall be aligned in such a manner that possible non-conformities can reliably be prevented. Relevant criteria for this include for example:

- A distinct awareness of quality on the part of all employees
- Product safety from during development through to series product
- Thorough documentation of quality data
- Traceability of materials
- Ensuring that employees are made aware of the effect of product defects (product liability)
- Verifying the availability of insurance, if necessary

13. (Safety) Parts subject to Documentation ("critical characteristics")

As regards (safety) parts subject to documentation the supplier is obliged to keep records of the quality assurance measures taken and the results of quality tests. The supplier shall observe these quality assurance guidelines for suppliers of FFT as well as the *VDA, volume 1 "documentation and archiving"*.
Qualification specifications and verifications (documents and records) of the supplier must be kept for at least 15 years after end of production.

14. Environmental Management and Occupational Safety

FFT expects its suppliers to install an Environmental Management and Occupational Safety System within which they judge as to what extent the own or external development and production processes are environmentally friendly and comply with the requirements of work and health protection. This comprises the obligation to continuously check the potential of procuring, utilising, and producing environmentally sound and resources saving products whilst always respecting the aspect of sustainability. Further, to adapt the latest development in technology, to minimise the consumption of resources (soil, water, air, energy, raw materials) and to use environmentally sound packaging-, logistics-, and transportation concepts.

Examples of environmental laws and their ordinances are (et al.):

- Federal Control of Pollution Act (Germany: "BImSchG")
- Ordinance of Hazardous Substances (Germany: "GefStoffV")
- Law on Chemical Substances (Germany: "ChemG")
- Closed Substance Cycle- and Waste avoiding Management Act (Germany: "KrW-/AbfG")
- REACh Regulations
- Environmental Liability Law (Germany: "UmweltHG")
- Federal Water Act (Germany: "WHG")
- RoHS (industry-specific requirement)
- Compliantce with the Hong Kong Convention (industry-specific requirement)

In general :

- further customer-specific requirements as well as market and country-specific requirements, laws and regulations

These should only be seen as minimum requirements. As regards producing abroad the supplier is also obliged to obtain information on and observe the national laws as well as those applicable at the relevant industry.
The obligation to minimise the use of resources with respect to the parts' life cycle has top priority.

15. Customs and Foreign Trade Law – Export Control

The import and export of goods within the framework of global trade requires compliance with and observance of numerous international and national laws, provisions and regulations as well as bilateral and multilateral agreements. Violations of these laws can lead to criminal prosecution and fines.
All goods imported from non-member states for further processing ("**importation of goods**") must be declared with customs by means of a customs procedure. The following procedures are worthy of mention:
"*Release for free circulation*" and "*customs procedures with economic impact*".
To further process or sell goods imported from a non-member state, these goods must be released according to the customs procedure "release for free circulation under customs (and tax) law". "Free circulation" is the technical customs term for import customs clearance. After import customs clearance, the goods are in "free circulation" within the EU with respect to customs and tax law.

Suppliers from non-member states are obligated to enclose a **certificate of origin** with every delivery of goods.

Suppliers from the EU are obligated to issue a certificate of origin for recurring goods deliveries (*long-term supplier declaration* [LTSD] or a chamber of commerce and industry [CCI] declaration). An LTSD is required for goods with preferential origin and a CCI declaration for goods with non-preferential origin.

Declarations of origin for goods deliveries from non-member states and for goods deliveries within the EU must be issued according to the applicable laws and agreements.

Foreign trade is subject in many countries to restrictions according to foreign trade and security policy (**foreign trade law – export control – embargoes**).

These restrictions apply in individual cases to goods (listed goods), to persons (listed persons/ companies/ organizations) and to the intended purpose (final use). The global distribution of specific goods is to be monitored and controlled in this way. These regulations are based on national and international lists of goods and persons. Non-listed goods may also be subject to export approval based on the final use of the goods if the intended purpose is either for military or nuclear applications.

If a good is subject to a restriction, this affects not only the goods delivery itself but also the sharing of technologies, technical and personnel support, services, brokering transactions and payment transactions. Any form of circumvention is also prohibited. Violations of foreign trade laws and regulations result in criminal prosecution and fines.

Suppliers are obligated to verify the **AEO-S certification** or to issue a security declaration according to AEO guidelines. This guarantees that every supplier can be considered a secure link in the international chain of delivery. In this way, the supplier documents that it evaluates its trade partners (customer, supplier, service provider, bank, personnel) and its own manufactured goods before the start of a business transaction with FFT according to the applicable regulations (countries list, goods list, persons list, intended purpose (catch-all clause), embargoes) for combating international terrorism (resolutions of the UN Security Council, joint foreign policy and defense policy of the EU (GASP), national foreign trade law).

US (re-)export control

From the perspective of the USA, this law applies extraterritorially. Subject to this law are goods that are located outside of the USA and of US origin, goods with US portions and goods produced with US technology.

US (re-)export control law therefore controls all (re-)exports of goods worldwide that can be considered “American” from the US perspective.

In the event of violations, US law calls for listing on specific US sanctions lists that prohibit other economic actors from entering into transactions with the listed company. Violations of US export control law can lead to economic disadvantages.

Suppliers are obligated to inform FFT of whether the required economic good is subject to US (re-)export control and whether the economic good is subject to other US export provisions, such as Export Administration Regulations (EAR) or the Export Control Classification Number (ECCN).

16. Sustainability and Social Responsibility

The FREUDENBERG FILTRATION TECHNOLOGIES SE & CO.KG is subject to the high **ethical and social standards** of the Freudenberg Group of Companies.
The supplier / contractor commits itself to act according to the principles of guidelines and standards of the Freudenberg Group.
As to principles, guidelines, standards, please refer to www.freudenberg.com / "Company".

Furthermore, no "conflict minerals" within the meaning of the Dodd-Frank Act Sec 1502 may be included.

17. Terms and Abbreviations

AHB	**A**llgemeine Versicherungs**b**edingungen für die **H**aftpflichtversicherung (general terms of the liability insurance)
AQP	**A**dvanced **Q**uality **P**lanning
ASTM	Standards of the **A**merican **S**ociety for **T**esting **M**aterial
AIAG	Automotive Industry Action Group
BimSchG	**B**undes**Im**missions**sch**utz**G**esetz (Federal Control of Pollution Act)
DmbA	Translation: Documentation (parts) with special archival storage
EAR	**E**xport **A**dministration **R**egulations
ECCN	**E**xport **C**ontrol **C**lassification **N**umber
FMEA	**F**ailure **M**ode and **E**ffect **A**nalysis
GHS	**G**lobal **H**armonized **S**ystem (*to classify and identify chemicals*)
IMDS	International Material Data System
HGB	*German for* **H**andels**G**esetz**B**uch / *Engl. :* commercial law
Marking of Hazardous Substances	"H"-phrases (risks), "P"-phrases (safety recommendations)
LTSD	**L**ong-**T**erm **S**upplier **D**eclaration
MDS / SD	**M**aterial **D**ata **S**heet / **S**afety **D**ata Sheet
Delivery Items	e.g. materials, products, raw materials, product improvement, goods for resale, services (installation)
PPA	**P**roduction process and **P**roduct **A**pproval (publication of VDA)
PPAP	**P**roduction **P**art **A**pproval **P**rocess (release procedure according to AIAG)
ppm	**p**arts **p**er **m**illion
QI	**Q**uality **I**ndicator
REACh	**R**egistration, **E**valuation, **A**uthorisation and Registration of **C**hemicals *European Chemicals Regulation*, effective 1 June 2007
RoHS	**R**estriction **o**f **H**azardous **S**ubstances Directive EU-directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
RPN	**R**isk **P**riority **N**umber **:** RPN is a factor meaning the probability of the occurrence of faults x significance for the customer x probability of the detection of faults in time (measurement of the assessment on non conformities in the FMEA)
VDA	Verband der Automobilindustrie (German association of the automotive industry)/ *see chap.* „**18. Literature References**"
WHG	Wasserhaushaltsgesetz (Federal Water Act)

Transport Regulations

- **GGVS / E** Translation: Dangerous Goods Decree Road / Rail
- **ADR** Translation: European Agreement on international transport of dangerous goods by road.
- **RID** Translation: Regulations on international rail transport of dangerous goods.

18. Literature References (current issues)

- EN ISO 9001 "Quality Management Systems – Requirements"
- EN ISO 14001 "Environmental Management Systems – Requirements and Instructions for Implementation"
- Technical Specification IATF 16949 – "Quality management system requirements for automotive production and relevant service parts organizations."
- **AIAG** Production Part Approval Procedure (PPAP)
- VDA Publications
  - Volume 1 „Documentation and Archiving"
  - Volume 2 „Quality Assurance of Deliveries"
  - Volume 6.1 „QM-System audit"
  - Volume 6.3 „Process audit"
  - Volume 7 „Procedures for Quality Data Messages"
  - Volume „Product Design – Process Description Particular Characteristics"