Supplier manual

EMERGE, a.s.
Tyrsova 1075
294 01 Bakov nad Jizerou Czech Republic
Czech Republic

hereinafter referred to as "purchaser"

binding on all suppliers of input materials

Hereinafter referred to as the "supplier"

To ensure that basic principles of quality management systems for companies supplying to the EMERGE, a.s. products, materials, or services.

Preface

This manual defines EMERGE, a.s. with its suppliers of products, equipment and services worldwide. The Supplier's Manual itself generally describes the quality requirements of EMERGE, a.s. to its suppliers. Applies to the entire EMERGE, a.s. and all supplier plants supplying to EMERGE, a.s.:

1. General

Supplier is fully responsible for the quality of its products or/and services for all their subcontractors throughout the supply chain. Therefore, the supplier shall:

- To have a fully functional quality management system according to IATF 16949 (alternatively VDA 6.1) certified by an accredited certification company, the requirements of the final customer and provide proof of this to the customer.
- Comply with all requirements of this agreement.
- Constantly monitor and meet all customer specific and product requirements (such as Formel Q Specific, Formel Q Eligibility, Formel Q New Integral Parts and references to technical guidelines and standards and other defined requrements), as well as all related legal requirements. Furthermore, all specific requirements of OEM customers of EMERGE,, a.s., and other additions and updates to this Manual, as amended.

- Manage and coordinate all of its subcontractors and ensure that all applicable requirements are known, understood and fully implemented throughout the supply chain.
- Immediately inform EMERGE, a.s. of any significant characetrictics that could affect smooth cooperation (eg suspension or withdrawal of the certificate, change in process or supply chain, etc.).

- The Contractor undertakes to prepare an emergency preparedness program efficiently and effectively according to IATF 16949 requirements. As part of the emergency preparedness, at least ensure continuity of supply in the event of failure of key suppliers, failures of key machines, tools and equipment, recurrent natural disasters, fire, staff shortages, logistical problems, environmental accidents, interruptions in energy supply, disabling of production facilities etc.

2. Continuous care for the quality of supplies

- To ensure constant contact with EMERGE, a.s. the supplier appoints a contact person for quality and its alternate. It also appoints Product Safety Representatives (PSCR) and their alternate. These representatives and alternates must be reachable 24 hours a day. The supplier must provide EMERGE, a.s. with a contact sheet, where these representatives and aletrnates will be listed (names, phone numbers, emails) and inform in writing form of any changes.
- In order to supplies even in emergency situations, the contractor must establish EMERGE,ncy plans for EMERGE,ncy situations such as failure of key equipment, staff shortages or field claims. Such emergency plans (see the chapter 1) shall be submitted by the supplier upon request.

3. Care for the environment and sustainability

- The supplier must continuously monitor customer´s environmentl requirements and relevant legal requirements and demonstrate compliance with these requirements.

  • At the request of the customer, the supplier must submit actual and complete documentation relating to the requirements of the IMDS (International Material Data Syst e m) in the database www.mdsystem.com and www.conflict-minerals.com
- Furthermore, the supplier is obliged to meet the minimum requirements of social responsibility and sustainability. Fulfillment of the requirements is documented in the form of a self-assessment in the database https://supplierassurance.com/

4. Technical documentation

- The supplier must demonstrate compliance with all technical requirements given by EMERGE, a.s. or the end customer
- The basic binding documents for example are:

  Product / process technical documentation (eg drawings , technical specifications, VW standards, test specifications, operating instructions, guidelines, etc.)

  _Formel Q- Konkret - Quality management agreement between VOLKSWAGEN and its suppliers.

- In order to ensure trouble-free cooperation, any doubts regarding interpretation, missing documents or specifications must be clarified immediately. The responsibility for clarifying doubts lies with the supplier.
- IATF 16949, VDA 1 and customer specific requirements must be met when archiving documents and records .
-Eventualy other Requirements of end-customer (OEM)

5. Determination and management of testing / control activities and equipment.

- All verification, validation, monitoring, control and testing activities shall be carried out in accordance with the technical requirements. This must be ensured and documented throughout the duration of the project.

- In order to demonstrate product compliance with the requirements, the supplier must ensure that all test equipment is monitored, calibrated and properly used and that this is fully documented. The supplier must own the necessary test and measurement equipment or use certified/acredited external laboratories.
- The supplier agrees to submit all documentation including test results, inspections, maintenance status and calibration of the measuring equipment to the representatives of EMERGE, a.s. and the end customer.
- For each type of measuring / testing equipment referred to in the control plan, a measurement system analysis shall be performed. Unless otherwise agreed and documented, VDA5 requirements and customer specific requirements , alternatively the AIAG MSA as amended , shall be taken into account . The supplier must ensure free access to the measurement system analysis for EMERGE, a.s. and the final customer.

6. Packing

- All parts must be suitably packaged to ensure their protection during transport, handling and storage. To ensure this, only approved packaging may be used. Marking and traceability must be unambiguously secured by a VDA label.
- In case the supplier requires special handling of individual parts / packaging units, he must notify EMERGE, a.s. of these requirements. Responsibility for communicating such requirements lies with the supplier.
- Production and deliveries must be according to FIFO (First in first out).

7. Product and process release

- The release of the product and the process must be carried out according to specific ch customer requirements that must be met.
- The supplier is obliged to allow the representatives of EMERGE, a.s. to enter the production plant.
- The Supplier is obliged to inform EMERGE, a.s. in writing form at least two months in advance of any changes to other significant facts.
  In the event of changes such as:
  _ any part change (with / without index change)
  optimization of parts
  _HW / SW change
  change of generation state
  tool modification / change

_ significant change of the process (eg. relocation of production within the layout of the supplier, change of tools, change of machine, change of subcontractor etc.) the supplier is obliged to inform EMERGE, a.s. at least two months before the planned change. The change must be made by the EMERGE, a.s. agreed. The first delivery of changed parts must be clearly labeled and packed.

8. Part and process approval

The following quality planning activities must be taken into account in the timetable. Selected documents are submitted to EMERGE, a.s. for inspection, approval or upon request. Project planning methods are based on VDA RGA - Product development.

For inspection	For approval	On request	Quality documentation	Deadline for submission
☒	☐	☐	Plan of process steps (Process Flow)	4 weeks before the 1st lunge pieces from the serial instrument
☐	☐	☒	Control plan	4 weeks before the 1st lunge pieces from the serial instrument
☐	☐	☒	list of special characters	
☒	☐	☐	FMEA design	
☒	☐	☐	FMEA process	
☒	☐	☐	FMEA for packaging and transport	
☐	☒	☐	the schedule of validation tests	at the same time as the construction schedule of the tool
☐	☒	☐	plannnig of control and test jigs	
☐	☒	☐	plan for preparation and submission of the first samples, including complete accompanying documentation	
☐	☒	☐	self - assessment of pre - series deliveries to	before the first pre-series delivery

Demonstrate compliance with the requirements

Compliance with all legal requirements, with the requirements of technical documentation (drawings, specifications, technical delivery conditions etc.), from the documents referred to, as well as with all requirements under this document, shall be documented in writing form to EMERGE, a.s. including test reports and other required documentation. The number of samples for delivery to EMERGE, a.s. must be included in the supplier's schedule (approved by EMERGE, a.s.)

Any changes to the product, tool or production process (eg. relocation, new production equipment, new sub-supplier) must be notified in advance to the appropriate EMERGE, a.s. department. In such cases, new sampling and re-production of the test series must be performed . The planned process changes at the subcontractor must be to EMERGE, a.s. reported minimaly two months in advance (see Chapter 7) and EMERGE, a.s. is authorized to review processes in the form of factory visit / audit in the manufacture of the parts supplied to it.

Acceptance of first samples

The supplier is obliged to discuss the scope and content of the right to the first sampling of purchased parts with the relevant department of EMERGE, a.s. prior to the start of the sampling process.
When submitting the first samples it is always necessary to submit min. 5 parts from each manufactured and delivered version with marked part generation status. The samples must be submitted at no cost to EMERGE, a.s.

The supplier is obliged to agree with the exact number with the company EMERGE, a.s.
just before starting the sampling process. The first samples must be produced on serial tools under normal serial production conditions.

For the first sampling, the supplier shall submit in paper form:

Documentation according to VDA requirements 2, submission level: 2 or PPAP submission level: 3 or according to end customer requirements
Marked samples - min. 5pcs from each design, impression, form marked gen./drafts
Measurement protocol for delivered samples - who, when, part identification (part no., drawing and gen. status, date), what (overlap, joint, surface traceability) and what he measured (micrometer, caliper …) - the method of alignment and the measurement range shall be agreed in advance - indicate the desired and actual measured values in the measurement result - data type io, ok, fulfilled, etc. will not be accepted - the measured values outside the tolerance must be clearly indicated eg by a different text description - if the character of the part does not allow accurate 3D measurement, then attach the photo of the part in the measuring template and the measuring protocol of the measuring template
Results of material and functional tests - prescribed drawings (according to the test validation plan) - the tests must be performed in a laboratory that meets the requirements of paragraph 7.1.5.3 in IATF 16949 - the protocols must include an evaluation in addition to the required and measured values - the protocols must include an accurate identification of the part, including the material
Biography of the work - completed in all points, kept on the form requested by the final customer
Preliminary process and machine capability (long-term capability must be demonstrated after sufficient parts have been manufactured)
MSA measurement capability
Control plan
Process Flow - production flow diagram (production and control steps)
Valid drawing documentation that corresponds to the agreed part status
Documentation of the fulfillment of the product requirements specified in the technical standards given in the drawings
Documentation of an approved record in IMDS (acceptance must take place before the first sampling)
Project schedule and sampling plan
Quality guarantee for pre-production phase (applies to VW projects) - Completely completed, including if necessary. of annexes - illustrated with until approved sampling unqualified

The acceptance of the first samples must be done at the EMERGE, a.s. plant. Failure to submit complete first samples to EMERGE, a.s. is only possible from the supplier nominated by the final customer for the work where the first sampling

is submitted to the final customer, subject to written approval by the final customer. In this case, the supplier submits to EMERGE, a.s. a copy of the cover sheet of the first sampling released by the final customer and a cover sheet issued to EMERGE, a.s.

If there is a rejection (ie a score of 6) when **approving the first samples** , you will be charged by a processing fee of € 220 for each rejecting in this way.

Acceptance Process " 2DP" at supplier

Acceptance is carried out at the supplier's production site. Its target is to ensure the process and volume of deliveries for the SOP and the serial start-up, taking into account the highest withdrawn quantity up to the performance test. The customer is entitled to take over 2DP for new parts in the presence of the supplier.

D / TLD parts

In case the supplier produces parts defined as D / TLD parts, the submission level 3 according to VDA 2 is agreed for sampling. At the same time, the supplier is obliged to prove self-audit of D / TLD according to Formel Q Eligibility requirements . Retraining for these parts is required to be documented once every 12 months (retraining exam validity for D / TLD parts is 365 days).

Retraining tests of parts in series (requalification tests)

The supplier plans and records the performance of periodic and retraining(requalification) tests. The supplier shall provide the customer with information about the performed tests without requesting the required deadlines and in a clear form.

To ensure quality, the supplier is obliged to perform regular full retraining of its scope of deliveries according to IATF 16949 (chap. 8.6.2) And VDA “Robust Manufacturing Processes”, chap. (5.3.4.) Unless otherwise stipulated by the final customer, within 3 years of the last sampling, the supplier must submit documents without being asked to do so, reports on the relevant retraining test otherwise are subject to sanctions, see Chapter 13. of this document. The contractor shall create and record a plan for retraining tests. The supplier defines retraining examinations, including the frequency of submission to his CP (Control Plan). The supplier keeps records of the status of requalification tests and sends it to the SQA once a year at the EMERGE, a.s. plant to which it supplies.

9. Statistical process control

- The supplier must demonstrate and document the ongoing quality of its processes through statistical process management methods.
- Each time a process proves to be unstable or statistically incapable, the supplier must initiate specific measures.
- The supplier must provide access to records on request.

10. Permanent process capability

The Suppler undertakes to monitor and control all defined and obligatory documented functional dimensions, which he sets in the control plan for pre-series (Pp, Ppk) and series phase (Cp , Cpk). Determination of functional dimensions is an important part of ensuring procedural capability. The required values are as follows :

-1.33 for functional dimensions
-1.67 for critical and safety parameters

11. Final inspection of the supplier

- Through appropriate inspection, the supplier must ensure that the products supplied to EMERGE, a.s. are free from defects. The inspection status must be clearly indicated on the parts or packaging.
- EMERGE, a.s. must be immediately informed of any parts or supplies which the supplier deems suspicious (early warning system). This rule also applies to similar (related) processes or products.

12. Marking and identification

- Each part must be clearly marked according to the requirements of the end customer.
- In the case of safety / important parts requirements must be met VDA1, IATF 16949, legal requirements relating to product liability, specific customer requirements and technical requirements to ensure traceability of parts.

13. Complaint procedure

- The supplier must use the „zero defect strategy“ in its management system
- Recall / field claims will be handled directly between EMERGE, a.s. and the supplier.

- All quality problems identified in EMERGE, a.s. and „defects of 0 km“ at the end customer caused by the supplier will be claimed to the supplier.
- Complaint processing by the supplier is required according the 8D method. The deadlines for replying are as follows:
  to point 3 within 24 hours (unless requested immediately)
  to point 7 within 5 working days (unless agreed otherwise)
- Upon request, the supplier is obliged to inform EMERGE, a.s. of the current state of problem resolution.
- In the event of a discrepancy in the delivery, EMERGE, a.s. charges fees: see the paragraph 14. All additional costs associated with the claim are transferred to the supplier.
- The supplier is obliged to take measures to prevent recurrence of non-conformity.
- If the supplier's remedial measures are not effective, the target deadlines are not met, or deliveries to the customer are in risk, EMERGE, a.s. is entitled to resolve the situation itself (eg. to carry out analyzes, measurements, sorting, etc.)

14. Cost of claims

Due to the ever increasing demands on the quality of supplied parts to EMERGE´s customers and ensure the of zero defect strategy parts, it is necessary to proceed to a measure that even incoming materials, semi-finished products, connecting components and other potential supplies meet all quality requirements.

- If our customer complains a part where the provable share in the complaint is caused by your defective product (non-compliance with agreed specifications), you will be

invoiced for all costs associated with this complaint. You will also be charged a fee for processing complaints EMERGE, a.s. of EUR 196.

- **In case if in our production will be find** problems with some individual components (materials), these parts and materials with us isolated in Scrap store, you will about these problems immediately informed and at regular intervals will be issued associated complaints.
  You will be charged a 196 EUR processing fee for each associated claim (regardless of the number of items or items claimed).

- If the supplied parts or items purchased **reclaimed during the initial inspection** you will also immediately informed of this (complaint report), and then you will be exposed to the complaint.
  You will be charged a fee of 196 EUR for each complaint issued in this way.
  Cancellation of fees is at the discretion of the responsible staff depending on the response to the claim.
  In case of failure to pay this amount within 25 days will be deducted from the amount of the invoice for us supplied material and within a period of 3 months.

- Due to deadlines, we did more **work, sorting, etc.** It will be a charge for complaint charged the hourly rate .

- More work and sorting is provided by EMERGE, a.s. in cooperation with an external company. Sorting costs are re-invoiced according to the list of external companies.

- In case sorting and rework NOK parts by employees of EMERGE, a.s. they are charged the following rates:

  - Sorting: 14 € / hour / operator
  - Rework: 20 € / hour / operator

15. Evaluation of supplier qualitative competence

EMERGE, a.s. performs continuous monitoring of suppliers' performance with a rating twice per year. Evaluates the quality of supplied parts and service suppliers are classified into groups A, B, C. In the case of vendor drop in group B, this is immediately informed and must propose corrective measures when falling into Group C is designated as a critical supplier and is it opened infringement proceedings on the quality agreement.

16. " PPM " arrangements relating to supplier claims

The agreement on the target level for PPM values has no influence on the supplier's liability under the warranty and on EMERGE,'s claims for damages in connection with defective (damaged) supplies.

Agreed target ppm: target is ppm 0

	1st year - project start-up:	Year 2 :	Year 3 :	Year 4 :	The following years….
PPM	50	40	35	30	25

The Contractor undertakes to pursue a " **zero defect** " strategy and to apply continuous improvement to reduce the percentage of defects. Improvement must be aimed at meeting the intervention limits in PPM for the coming years.

Penalties for non-compliance with PPM goals (in case of service on works)

Failure to meet PPM targets is subject to sanctions:

The penalties are applicable if the PPM values exceed the target value in three consecutive months and are valid until the supplier reduces the PPM level below the target value.

PPM targets will be tracked 3 months after SOP) *

The amount of the fine is 1% of the price of the performed service.

The volume of parts to be considered is the delivered parts per 1 month. The fine is applied with a one-month delay to settle any disputes and is deducted from the payment for the services rendered.

) * SOP = start of mass production

17. Escalation process

Every month critical suppliers can be selected on the basis of quality and logistics information , who are involved in the escalation process. A supplier who fails to meet his obligations or qualities in a given month may be included in the escalation process . causes other problems. The escalation process takes place in the three stages described below .

Escalation level 1

EMERGE´s SQA discuss to list of critical suppliers with a managers of quality, purchasing and logistics. An agreement with them, invite selected suppliers to present and discuss corrective action plan with the participation of specialists in the supply of quality , staff quality , logistics and purchasing for.

Escalation level 2

In the case of repeated classification of the supplier to the critical suppliers in the following month:

- revision of corrective actions with the supplier with the participation of a supplier quality specialist , quality and logistics manager, purchasing manager and plant manager
- a review of the implementation of remedial measures directly at the supplier's plant by means of a check, if necessary a full process audit.

Escalation level 3

In case the corrective measures implemented by the supplier do not lead to an improvement of the procedural capability and quality of the supplied parts, the supplier is categorized as “C”. After categorization „C“, the supplier is obliged to submit regular reports on the solution of defined deficiencies and fulfillment of Subsequently, the effectiveness and efficiency is verified through an audit performed by EMERGE, employees at the supplier.

As long as the supplier is classified in category “C”, the supplier is not asked for new projects / contracts.
The supplier is obliged to inform the certification company it certified him according to IATF 16949, or ISO 9001 of this special status.

18. Final provision

- The supplier is liable for directly or indirectly caused damages due to defective deliveries, breaches of safety or other legal regulations. The supplier further guarantees for all damages caused by delayed deliveries (delayed delivery / or quality does not correspond to agreed requirements), incl. downtime costs in the production of EMERGE, a.s.
- Any financial penalties imposed by the end customer and caused by the supplier will be passed on to the supplier.
- This Appendix is valid for the entire duration of the project. The set targets will be reviewed together at least once a year or whenever the target values required by the end customer become more stringent.
- In the event that certain individual provisions of this Manual prove or become invalid, on the basis of a mutually agreed form of this manual, this fact will not affect the validity of this manual. In such a case, the invalid provisions will be replaced by valid provisions that are as close as possible to the original intention.

Zdeněk Korous - EMERGE, a.s. Bakov nad Jizerou 15.9.2020

Customer	Place/Date	Signature