Quality Assurance Agreement with Production Material Suppliers

Stand 01.07.2012

Preface

Ernst Scherzinger GmbH & Co. KG, as well as its associated companies, hereinafter named “Scherzinger Pump Technology” or “we”, wants to meet the highest expectations of customers and consumers on the international market with strict quality management. The faultless quality and reliability of additionally purchased products (systems, components, raw materials) or their related services have direct influence on the quality of Scherzinger Pump Technology’s products.

This *Quality Assurance Agreement with Production Material Suppliers (QAA)* is a binding agreement of the technical and organisational framework conditions governing all deliveries and services necessary to achieve the shared “zero-defect” quality objective. It describes the minimum requirements of the quality management system of the supplier and is used to understand our requirements and translate cooperation as partners.

We expect all suppliers to comply with the points listed in this QAA. They are part of every request and every order. The suppliers must ensure that their subcontractors also commit to fulfilling this QAA.

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1 Supplier's responsibility for the quality of his products and services

The supplier is responsible for providing products and services which are free from defects in accordance with the technical documents which have been agreed in writing (see *Section 3.1*). He must check the completeness and correctness of the documents and if necessary request further information from Scherzinger Pump Technology. The supplier must know the requirements for the product and notify Scherzinger Pump Technology if there are any ambiguities.

The supplier's quality strategy should be geared towards constant improvement of his processes and services. The objectives are "zero defects", 100% delivery reliability and the reduction of costs.

The supplier shall assume full responsibility for the product delivered by him or the service provided by him.

The supplier also undertakes to comply with promised deadlines, e.g. for delivery of samples, the initiation of corrective actions, distribution of APQP status reports.

2 Quality management system

2.1 General

As a Scherzinger Pump Technology supplier, ISO 9001 certification is a prerequisite.

To be classified as a strategic supplier and therefore have special consideration in the placement of new orders, the supplier is obligated to develop his quality management system in line with ISO/TS 16949.

Depending on the product use, additional certifications for specific industries such as for example aerospace, rail or medical engineering can be agreed in the contract in individual cases.

2.2 Evidence of the quality management system

The supplier must take responsibility for presenting his certificates to the buyer in the customer's purchasing department and report updates immediately after expiry of the validity period or on withdrawal of a certificate. Any shortcomings in the supplier performance lead to downgrading in the supplier evaluation (see *QAA 5 Supplier Evaluation*)

2.3 Checking the quality management system, process and product quality

The supplier must perform internal process and product audits at regular intervals.

In the case of quality defects or weaknesses in the supplier's system, we are entitled to check the compliance of the supplier with the customer requirements. Depending on circumstances, this check can be performed as a technical discussion, quality discussion or as a system or process audit and agreed with the supplier in good time before the scheduled execution.

Moreover, Scherzinger Pump Technology is entitled to check as needed the quality assurance measures of the supplier with a customer representative after prior coordination of dates.

The supplier shall allow Scherzinger Pump Technology access to the affected areas as well as insight into the relevant documents. The supplier shall assume the costs for the quality measures stipulated in this Section 2.3.

3 Fundamental preconditions and measures

In order to detect possible defects in advance, targeted preventive measures must be initiated before the start of production. Any defects that might occur during the manufacturing process must be recognised early in order to be able to initiate appropriate emergency measures to avoid them.

3.1 Technical documents

The quality characteristics to be complied with are stipulated in the technical documents, e.g. drawings, material specifications, product delivery guidelines, terms of delivery for ordering with applicable instructions, procedural guidelines, requirements specification documents and technical specification documents for the customer. The supplier always receives from the customer the latest technical documents in printed or data form. This excludes catalogue goods and merchandise with no special requirements.

The supplier is obligated to ensure that everything is manufactured and inspected according to these documents which are made available to him and agreed with him.

3.2 Advanced Product Quality Planning

The requirements of *QAA-1 Advanced Quality Product Planning* must be implemented in preparation for volume production.

3.3 Production process and product release procedure

Before starting volume production, the supplier must comply with the requirements of *QAA-2 Production Process and Product Release Procedure*.

3.4 Statistical process control and volume production inspection

A consistent quality level can only be achieved through a stable, statistically identifiable process. For this reason, the supplier must use appropriate control methods such as for example records generated during mass production. This includes documenting any process parameters which can negatively influence product characteristics e.g. during heat treatment, welding or plastic injection moulding. Process interruptions, for example broken tooling, and measures governing quality must also be clearly visible from these records.

The supplier is obligated to regularly take random samples and document the results. For a batch to be accepted, the random sample must not contain any defective products (“zero defect principle”).

Statistical process control *(SPC)* based on known methods, such as *VDA 4, AIAG SPC* or *DGQ*, is mandatory for characteristics agreed with the customer, e.g. in the product drawing. The relevant process capability values as regards the agreed characteristics should be made available to Scherzinger Pump Technology within one working day on request.

A capable mass production process can be said to exist if a long-term capability process study produces a capability factor Cpk >1,33. In the event of a non-capable process (Cpk <1,33), the supplier is obligated to immediately initiate appropriate corrective actions. He must perform a 100% inspection until process capability is restored. Evidence of the process capability achieved must be provided.

For economic reasons and with the aim of minimising defects, we expect the supplier to continuously improve his processes.

3.5 Detection of defects at the supplier's premises

If, at the supplier's premises, the product or service to be supplied is found to have a defect during the manufacturing process, then the supplier must interrupt and correct the process immediately. In this instance, all products which have been manufactured since the last sample inspection that gave a positive result (last good part) must undergo a 100% inspection. Defective products must be secured without delay and stored in a safe place ("quarantine store") until the cause of the defect has been finally resolved. All corrective actions initiated must be clearly documented in the records.

If a subsequent inspection discovers that the defective products cannot be reworked then these must be scrapped. In the event of rework, all stipulated volume production inspections must be carried out.

If, in containing a quantity of defective items, it is found that defective products may already have been delivered to the customer, the relevant quality assurance departments in Scherzinger Pump Technology's recipient plants must be notified and a further course of action clarified.

3.6 Application for special release

In the event of deviations from the product or service specification (drawing, technical delivery condition, material, material properties etc.), or from the approved process, the supplier must apply to the customer for a special release before the products are dispatched.

Written consent for this must be obtained from Scherzinger Pump Technology, via the contact person stated on the order document, using the customer-specific application form (see *QAA3 – Appendix 1 Modification Approval / Special Release)*.

3.7 Application for modification approval

In the event of planned changes to products, processes, materials, tools or production site (transfer) even with subcontractors, the supplier is obligated to submit an application to the contact person from Scherzinger Pump Technology stated in the order using the customer-specific application form (see *QAA-3, Appendix1*).

3.8 Detection of defects at the customer's premises

If defective products are only detected once they have reached Scherzinger Pump Technology, the supplier is obligated to initiate appropriate measures immediately to contain the defect.

We will notify the supplier of a complaint in writing or in text form, e.g. in the form of an inspection report. The subsequent complaint analysis and generation of effective corrective actions must take place in accordance with *QAA 4 – Complaint Handling*.

Complaints are incorporated into the supplier evaluation (see *QAA 5 Supplier Evaluation*) which represents an important decision-making criterion for Scherzinger Pump Technology in the placement of new orders.

The supplier is liable for damages or expenses resulting from the delivery of defective products or services. Scherzinger Pump Technology is entitled to substitute performance at any time, after first notifying the supplier, in particular with regard to sorting / rework.

3.9 Escalation process

In the event of cumulative quality problems or repeat complaints, Scherzinger Pump Technology is entitled to place increased demands on the inspection of goods at the supplier's premises or initiate other measures, which may even culminate in the disqualification of the supplier.

These requirements are described in *QAA 6 – Escalation Process*.

3.10 Packaging and labelling

The supplier is responsible for protecting the products supplied by him and must use appropriate packaging / external packaging and means of transport. At delivery, both the (external) packaging and the products themselves must be labelled in accordance with the agreements made with Scherzinger Pump Technology and Scherzinger Pump Technology's valid packaging specifications.

The delivery note and packaging units (external packaging, individual packaging) must at least be labelled with:

- Purchase order number/customer order number
- Quantity and unit
- Customer drawing number and customer item number

Additional information, where appropriate, must include:

- Batch number (if requested in the material specification)
- Copy of the modification approval issued by Scherzinger Pump Technology (Special release) (see Appendix *QAA 3 – Modification Approval and Special Release*)
- Reference to any partial or remaining deliveries
- Labelling of initial samples
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3.11 Requalification inspection

All products must undergo a full dimension and function check, performed annually by the supplier in accordance with the control plan / inspection plan, whilst taking account of the customer specifications for material and function. The results must be made available to Scherzinger Pump Technology on request.

3.12 Evidence of material properties

As evidence of the material properties, the supplier must prepare inspection certificates based on the “Standard 3.1” in accordance with *DIN EN 10204 and DIN 55350-18* and send these to Scherzinger Pump Technology within 24 hours on request.

3.13 Archiving of records

For the purposes of traceability in the event of a quality defect, the supplier is obligated to store quality records generated during production, e.g. measurement records, material test certificates or other test results, in a safe place for a minimum of five years after their creation.

Relevant documents concerning records about quality services with characteristics requiring documentation must, however, be stored in a safe place for 15 years. Characteristics requiring documentation are clearly labelled in the technical documents (drawings and specifications).

This only applies if longer statutory periods are not stipulated.

3.14 Inspection equipment

The supplier is obligated to equip himself with inspection equipment which allows him to check all product characteristics. If an external company is used for inspections, it must be appropriately accredited.

Where necessary, appropriate inspection equipment and inspection methods should be matched between the supplier and Scherzinger Pump Technology.

3.15 Environment, safety, recycling

The customer should aim to eliminate the negative effects of his products and those purchased by him on people and the environment. The supplier undertakes to comply with the relevant valid laws and directives.

ISO 14001 certification is desirable and is taken into consideration in the supplier evaluation (see *QAA 5 – Supplier Evaluation).*

3.16 Checking of contractual products supplied

The supplier is responsible for delivery of the contractual products ordered in accordance with the specifications. Goods received in the customer’s incoming goods facility are checked with regard

to quantity and identity as well as transport and packaging damage. The supplier is immediately notified of any detected defects.

Furthermore, the customer will check the delivered goods during production according to the conditions of an acceptable business operation and notify the supplier in writing of any defects occurring immediately after their detection. In this respect, the supplier waives the objection to the delayed notice of defect.

3.17 Delivery reliability

The supplier is obligated to comply with and monitor the agreed quantities and dates. If he establishes that the ordered delivery quantity cannot be delivered on the agreed date, then Scherzinger Pump Technology's contact person as stated in the order must be informed immediately.

Deviations from the agreed delivery date and agreed quantity are also incorporated into the supplier evaluation (see *QAA 5 – Supplier Evaluation*) which represents an important decision-making criterion for Scherzinger Pump Technology in the placement of new orders.

The supplier must assess his delivery reliability to Scherzinger Pump Technology on a regular basis – including incidents associated with additional freight costs. This data must be made available to Scherzinger Pump Technology on request.

4 General provisions

- Any modifications or amendments to the agreement shall require written form.
- The contractual relationship shall be governed by German law, excluding the German conflict of laws. The legal venue is Donaueschingen, Germany. However, Scherzinger Pump Technology is entitled to sue the supplier in any other competent legal venue.
- If any provisions of this agreement are or become inoperable, then the validity of the remaining provisions shall not be affected.

The parties undertake, within reason and in good faith, to replace any inoperable provision with operable regulations that have an economic result that is equivalent.

5 Appendices

The following appendices are an integral part of the *Quality Assurance Agreement with Production Material Suppliers* in the current version

QAA 1 *Advanced Product Quality Planning*
QAA 2 *Production Process and Product Release Procedure*
QAA 3 *Modification Approval and Special Release*
QAA 4 *Complaint Handling*
QAA 5 *Supplier Evaluation*
QAA 6 *Escalation Process*