



Because we care

Quality Assurance Agreement

between

Bystronic Lenhardt GmbH
Karl-Lenhardt-Strasse 1-9
75242 Neuhausen-Hamberg

- hereinafter referred to in the short form as "BYLE" -

and

(Company Name)
(Street/PO Box)
(Post code/Town)

- hereinafter referred to as "Supplier" -

Preamble

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Preamble

This Quality Assurance Agreement (hereinafter referred to "QAA") represents the contractual definition of the general technical and organisational conditions and processes between BYLE and the Supplier.

It regulates the measures for ensuring quality with regard to on-time delivery and minimal costs to the benefit of both Parties.

You can find the QAA at:

<https://www.bystronic-glass.com/unternehmen/agb/>

1. Scope

In conjunction with the Purchasing Conditions of BYLE in the amended version, the provisions of this QAA apply to all existing and future deliveries between the Supplier and BYLE.

In the event of conflicts, this Quality Assurance Agreement prevails in terms of its area of application.

This Agreement also applies to the supply relationships with/between group companies of the Parties, insofar as group companies of BYLE do not conclude / have not concluded other agreements with respect to the present contractual object. Group companies in this sense are companies in which one Contracting Party directly or indirectly holds a majority share. The Supplier guarantees that it has power of representation to this extent.

The Supplier places its subcontractors under an obligation to comply with the obligations they have undertaken under this Contract. BYLE may require its Suppliers to provide corresponding evidence and the respective Supplier must be satisfied concerning effectiveness of the quality management systems in place at its sub-contractors. Likewise, BYLE may require that the Supplier submits written test, inspection, check and other quality certificates belonging to its subcontractors.

2. Selection and use of the quality management system

Suppliers who supply BYLE with products are obliged to implement and maintain a quality management system (hereinafter referred to as "QMS"). This QMS must correspond to the latest version of EN ISO 9001 or another comparable standard. Evidence for this is to be provided by submitting a valid certificate for one of the aforementioned standards, issued by an accredited certifying company.

The certificates submitted by the respective Supplier must be provided to BYLE independently and be kept up-to-date.

The Supplier shall also ensure its compliance with other requirements laid down by BYLE customers on a project-by-project basis.

Effective procedures, based on BYLE products and the requirements of BYLE, need to be introduced within the framework of this QMS. This is particularly true for the procedures for:

- Procuring raw materials and purchased parts;
- Controlling processes, statistical process control (SPC) and process capability;
- Tests, checks, inspections and measures to ensure a zero-defect strategy.

3. Auditing

BYLE or third-parties contracted by BYLE, or a customer of BYLE are entitled at any time to audit the system, process and product of the Supplier.

Within the scope of its deliveries, the Supplier must also make it possible for BYLE, or a third-party contracted by BYLE or a customer of BYLE to audit its subcontractors.

4. Zero-defect strategy

The Supplier is committed to the objective of achieving zero defects. The Supplier must ensure that all its products fully meet the requirements specified. The Supplier shall inform BYLE immediately if it foresees deviations from agreed targets and shall present BYLE with appropriate measures to correct the deviations.

Agreeing to a target has no effect on the Supplier's liability regarding warranty and damage claims made by BYLE owing to defects in the deliveries. The specifications for the product shall be complied with in all cases. In fact, the Supplier shall also be liable for defects when the defect rate falls within the target rate agreed upon.

5. Compliance

The processes required for manufacturing the product and the materials used for this purpose shall at all times represent the current state-of-the-art for science and technology, and the relevant standards and regulations in the sector.

An EU safety data sheet in accordance with Regulation 2015/830/EU (CLP) (incl. amendments, additions and successive guidelines) shall also be submitted along with the first delivery (or change in delivery) of hazardous and auxiliary materials (e.g. oil, grease, adhesives, paints). The same (i.e. written notification and complete documentation) applies to the supply of materials and parts, which again release hazardous substances under certain conditions, and substances that can only be disposed of in difficult circumstances.

Where the regulations and directives of the EU (provisions) apply, the respective requirements of these are to be complied with, in particular, the Machinery Directive (2006/42/EC), the Low Voltage Directive (2014/35/EC), the Electromagnetic Compatibility Directive (2014/30/EU) and any other regulations to be applied where

applicable (including all amendments, additions and successive provisions in each case). The Supplier is responsible for determining the rules, which are applicable in individual cases.

Compliance with the obligations under this Sec. 5 shall be a condition for the proper performance of contracts with BYLE.

6. Acquisition phase

6.1 Enquiry

The Supplier receives the enquiry from the buyer/purchaser responsible. The Supplier is obliged to handle all enquiries made by BYLE as business secrets including all related commercial and technical details.

6.2 Proposal

The offer must be complete and detailed in accordance with the requirements in the request for proposal. Only proposals that fulfil this requirement can be processed. The criteria for making a decision in favour of suppliers are based, amongst other things, on commercial competitiveness, quality, logistics, project management, information exchange and the project aims.

6.3 Acceptance of the proposal

Once a preliminary decision has been made in favour of certain suppliers, preliminary discussions take place with these suppliers.

From the moment the Contract is awarded, all information on parts procurement, tool costs and deadlines is to be documented in accordance with the BYLE requirements, right from the definition and design phases to production kick-off.

BYLE reserves the right to verify the competitive ability of suppliers using appropriate measures and to coordinate the status of the project with all participants involved in the process, i.e. the sub-contractors, corresponding to the specification.

7. Preventive quality measures and "milestones during project development"

In terms of the zero-defect principle, the work performed requires that defects are avoided consistently.

Of decisive and equal validity here are a functioning QM system in accordance with the body of rules referred to in Sec. 2, the careful implementation of the preventive quality measures agreed upon, the BYLE construction standards agreed upon and the customer requirements, which the Supplier is informed about.

Specification of the product quality planning tasks (APQP) and production part approval process (PPAP) described in Section 7.1– 7.7 takes place during the preliminary discussions. All the results and documents are to be sent to BYLE in unsolicited form.

7.1 Project management

The demand for ever shorter development times, lower costs and increased planning predictability, necessitates the consistent application of structured project management methods.

Within the framework of preliminary discussions, the parties involved (supplier, quality assurance, engineering, purchasing) shall agree on related tasks, milestones and project goals, with regard to quality, costs and deadlines. This data is then incorporated into the BYLE project management system and becomes binding in the form of the outline project plan. Suppliers need to provide notification of postponements in delivery dates without delay and these need to be approved by BYLE.

In interdisciplinary teams (Supplier, BYLE), scheduled tasks are jointly monitored based on reviews.

7.2 Reviews

Throughout the whole of the product development process (from the definition and design phase right up to the production phase), the Supplier needs to verify the development and planning status at appropriate milestones. This is done by performing reviews, which BYLE usually participates in. The Supplier needs to submit the results of these reviews in writing. Depending on the phase concerned, the review report must address the following topics, amongst others:

- Status of development/design/testing
- Documentation status (e.g. drawings, test reports, specifications, manufacturing and testing process, FMEA,...)
- Status of the requirements for the product concept catalogue/specification/drawings
- Status of preventive quality measures
- Status of production and test planning
- Status of the agreed schedule
- Status of resource creation

7.3 Project appraisal

Within the scope of the appraisal by the Supplier, a quality analysis needs to be performed in addition to the general feasibility and production feasibility analysis. These analyses relate to the scope of work defined during the preliminary discussions on the project. This is based on experiences made with comparable products or processes, that can be transferred to the new product or process.

The results of these analyses need to be documented in writing and give rise to the first quality estimate for the new product or process. The Supplier is also asked to examine the documents received for completeness. Information that is missing and data that is required for the project are to be requested in writing from BYLE.

7.4 Product development

The Supplier receives the product concept catalogue from BYLE for the product to be developed or adapted. The Supplier prepares a product development plan based on this catalogue and the outline project plan. Besides determining the development activities, capacities and quality evaluations required, the plan also specifies the phase-specific milestones.

The Supplier undertakes to keep secret all documents received, and use them solely for the purposes of supplying BYLE.

Once a completed product development phase has been accepted, Section 7.4 no longer applies.

7.4.1 Product concept catalogue

As the basis for development, the Product concept catalogue contains the description of the product, its environment and interfaces, and general mandatory and technical requirements.

7.4.2 Drawing maintenance/Change management

The development supplier is responsible for drawing maintenance, change management and the corresponding documentation. The construction status is documented for BYLE using a finished product drawing. In addition to the product requirements, this should also contain the approved content and the BOM for assemblies, incl. the drawing and individual parts index. If the product to be developed includes a software application, the Supplier needs to prepare a software requirements specification specific to the project. The individual stages of the development of the software are to be documented using appropriate documentation (e.g. flowchart, program listings, test results). The software documentation is to be submitted to BYLE.

7.4.3 Quality evaluations/system FMEA, product

Quality evaluations are to be planned and conducted to accompany development, in accordance with the degree of concretisation. The following quality methods are to be used according to relevance:

- Failure Mode and Effects Analysis (FMEA)
- Fault Tree Analysis (FTA), Ishikawa diagram
- Simulation methods (e.g. FEM, mold flow methods)
- Special testing methods

These methods are determined during preliminary discussions and during ongoing project work.

7.4.4 Testing

Testing helps to determine possible defects, problems or weaknesses in the product as early on in the development process as possible, that would not be possible to detect using other quality evaluations (cf. Sec. 6.4.3). The basis for this is formed by a test plan, which is coordinated with BYLE, and must contain the following at a minimum:

- Testing sequence
- Development stage of the prototypes for testing
- Scope of testing (number of samples)
- Testing methods with a detailed description
- Measuring devices, test station
- Evaluation process
- Documentation

The results of the individual tests need to be recorded (target/actual value) and historicised. Amongst other things, they are used as a basis for preparing the drawings and the specification.

Comprehensive testing of the software is to be scheduled during the development process for products that contain software.

7.4.5 Specification

The results of the product development are to be documented in a drawing and/or specification. The technical requirements contained within this/these describe the product in accurate, complete and unambiguous form. It must be possible to produce the product under series production conditions. The Supplier prepares the drawings and specifications according to BYLE guidelines and BYLE approves them.

7.5 Process development

A process development plan helps to describe all the tasks required for setting up a qualitative manufacturing process. These tasks need to be performed in parallel to product development, or, when product development has already been completed, in time for series production.

7.5.1 Resource planning

The Supplier prepares a resource schedule for all parts. This ranges from equipment design to resource creation and the release of the initial sample. The schedule makes the progress for all equipment details visible as a percentage along with the key milestones.

The equipment design draft needs to be submitted to BYLE for consultation on request. Tool separations, ejector marks and casting positions or similar are not allowed to be specified without the consent of BYLE.

The parts need to be labelled and documented in a parts history corresponding to the consultation stage. Approval by BYLE does not influence the Supplier's obligation to deliver flawless products.

7.5.2 System FMEA, process

Building on the system FMEA product and concomitant to planning, the system FMEA process is used to evaluate and record the production process in relation to all risks.

7.5.3 Production and test planning

During every phase of the project (prototype, pre-series and series phase), the Supplier has to plan, implement and document the appropriate steps in production and testing. The Supplier has a system in place for this purpose that specifically includes the agreement, specification, documentation, control and approval of the following items:

- Key quality characteristics and features of the product
- Process parameters
- Process and production methods
- Production equipment
- Testing methods
- Testing equipment
- Limiting values, tolerance samples
- Procurement of purchased parts and materials
- Procurement of equipment

The following information is to be submitted to BYLE for consultation and documentation of the process development:

- Flowchart (production and testing process ranging from goods receipt to shipping)
- Process control plan (key product and process characteristics and features)
- Process capability studies
- Finished product drawing
- If necessary, functional specification
- Emergency strategy to alleviate supply bottle necks

7.5.4 Process capability

A study and evaluation of process capability is to be performed.

BYLE specifies to the Supplier the product characteristics and features key to quality. For this purpose, the Supplier shall perform a detailed analysis of the

suitability of the systems and means used for production and document them in the initial sample test report.

During ongoing series production, the Supplier shall use suitable processes (e.g. statistical process control) to demonstrate and document its compliance with all the features and characteristics key to quality, and, in the case of deviations, demonstrate either that its systems are suitably optimised, or perform suitable tests on the manufactured products to demonstrate that no defective deliveries can take place.

Beyond the key quality characteristics and features of the product specified by BYLE, the Supplier is also responsible for the correct specification and monitoring of its own key quality characteristics and features.

7.6 Process acceptance and capacity assessment

The process acceptance and capacity assessment stages serve to demonstrate that the production process at the Supplier is operated under controlled conditions and meets the required capacity.

The process acceptance and capacity assessment stages need to take place before or during the initial sample run. Improvements and optimisations to the process need to be performed in advance. Amongst other items, the following need to be completed by the Supplier prior to BYLE accepting the process:

- Valid drawings/specifications must be available
- The process must already have been operated under series conditions and approved internally by the Supplier. Drawing and specification requirements must have been verified. Deviations need to be incorporated into the drawing or specification by the product development department responsible
- Production and testing facilities need to correspond to the series production stage and be documented. The measuring capability of testing and measuring equipment needs to be demonstrated
- The agreed quality measures need to have been implemented and the results available (e.g. FMEA, capability studies, check plans)
- The number of parts to be produced need to have been defined
- All quality measures and sampling (incl. process acceptance and capacity assessment) need to have been performed and completed by the upstream suppliers
- The employees involved need to have been trained and a record of this needs to be available
- The existing packaging needs to satisfy the series packaging requirements defined
- The number of parts required for the initial sample needs to have been defined and the planning of initial sampling coordinated with BYLE

All deviations and improvements deemed necessary as a result of the process audit shall be recorded and must be immediately remedied or implemented.

7.7 Initial sampling

Initial sample planning is to be prepared for the initial sampling run up to the sample test report. The nature and extent of initial sampling is defined during preliminary discussions with BYLE.

All the features of the drawing and specification are to be verified on the initial samples. The parts from each nest are to be sampled for parts from multiple tools.

The results need to be documented in the initial sample test report along with their actual and target values. Along with

- the initial samples
- the capability tests for features and characteristics key to quality
- the Q planning documents (e.g. testing process plan, control plan)
- the parts history
- the material data sheet
- and any other documents required by BYLE,

the report needs to be presented to the Quality Dept. at BYLE. Initial sample deliveries are to be marked according to BYLE specifications. Deviations in the initial sample report are to be reconciled with the product development department responsible prior to the initial samples being presented and written approval obtained in the form of a deviation request.

Series deliveries are only allowed to take place once BYLE has released the initial sample, and the design, materials and processes match the initial samples released.

If further sampling is required, because the initial samples have been disposed of, the costs for this are to be covered by both Parties proportional to who incurs the costs.

An initial sample being approved does not release the Supplier from its obligation and responsibility to deliver products free of defects. Responsibility for the quality of the product produced lies with the Supplier.

8. Series process

8.1 Product and process

During series delivery, the products are to be delivered on time and without defects as contractually agreed and approved during initial sampling.

By performing regular product audits (inspections on finished products ready for shipping), the Supplier shall demonstrate that the products meet the specified requirements at all times. The production processes need to be compatible, and continually monitored, assessed and controlled. Product re-qualification is to be performed at least once every 24 months.

8.2 Product and process changes

Product and process changes and production relocations need to be approved or released by BYLE. Changes typically require new process inspections and sampling to be performed.

8.3 Tests, checks and inspections

The Supplier is obliged to perform and record all necessary tests, checks and inspections from the initial development of the product to its final delivery.

In order to have recourse to monitored testing equipment during the requisite tests, checks and inspections, the Supplier needs to perform appropriate maintenance on the equipment at regular intervals to check it for its usefulness and the reliability of the results it provides (calibration). The Supplier needs to have defined and implemented appropriate and suitable methods for both processes within its QMS. These provisions also apply to testing equipment and checking aids that BYLE has supplied the Supplier with.

The Supplier shall coordinate with BYLE in advance the checks and inspections on series deliveries. It must be possible to recognise the test, check and inspection status of the parts during the entire product development process.

Since the checks and inspections required under this QAA take place exclusively at the Supplier's premises, BYLE only checks and inspects goods on delivery with regard to the type of product or identity, quantity and also externally for transport damage identifiable on the packaging. Likewise, BYLE usually only ever performs random checks and inspections on the quality documents delivered with goods. BYLE performs further checks and inspections in justified cases.

If BYLE instructs the Supplier to deliver the goods to a third-party and not to BYLE, BYLE reserves the right to instruct the third-party to check and inspect the incoming goods as described above. The Supplier agrees here and now to accept checks and inspections on incoming goods by said third-parties, and recognises any complaints made by said third-parties as being those of BYLE in accordance with complaints to be brought under Sec. 377 German Commercial Code (HGB).

Insofar as possible in the ordinary course of business, BYLE or a third-party contracted by BYLE shall subject either the assembly produced from the delivery to

an inspection prior to the beginning of the next production phase, or the finished product produced using the assembly. If defects are identified that result from a defect in the delivery, they are to be reported immediately. To this extent, the Supplier waives its right to object owing to late complaint.

Further duties to investigate on the part of BYLE in accordance with Sec. 377 German Commercial Code (HGB) do not exist.

BYLE is entitled to participate in all the findings, inspections, tests and checks performed by the Supplier and its subcontractors, or have third-parties authorised by BYLE act as observers or even perform said tests, inspections and checks at the Supplier's premises following prior consultation with the Supplier.

8.4 Complaints, defective products

An inspection report shall be prepared when deviations show up in the deliveries. Immediate consultation with the Supplier shall take place concerning the return of the products and/or sorting out of defective products and remedial work. According to the choice of BYLE, the procedure shall be performed by the Supplier or a third-party appointed by the Supplier or BYLE at the expense of the Supplier. The complaint costs are staggered:

- Step one = First delivery of nonconformity parts will cost 100€
- Step two = Second delivery of nonconformity parts will cost 200€
- Step three = Third delivery of nonconformity parts will cost 400€

BYLE urges the speedy rectification of the defect and the preparation of an 8D problem solving report on the measures to resolve the problem.

8.5 Quality records

Under its QMS, the Supplier is obliged to document the product and process specifications (e.g. test and measurement values, process parameters, etc.) in their entirety and archive all the relevant documents (quality records).

The Supplier is obliged to document the history of all key parts from the beginning of development/production, so that any changes can be traced consistently against the original date of use. The Supplier shall update this history after every change to the date and submit it to BYLE.

The Supplier is obliged to keep these quality records for 15 years. After this period, the Supplier shall submit the documents to BYLE free of charge. The destruction of these quality records requires the prior written consent of BYLE. The Supplier shall grant BYLE or a customer of BYLE access to the quality records for verification purposes at any time on request.

8.6 Traceability

The traceability of the end product back to the raw material must be guaranteed, unless otherwise agreed. The Supplier is required to maintain an appropriate system, which makes it possible to detect when and which product was produced or processed using what resources and process parameters with what raw materials (batches). The Supplier shall also document changes in sub-suppliers and inform BYLE of this.

8.7 Supplier evaluation

Regular supplier evaluation is performed by

- Purchasing
- Product Development
- Quality Management
- Logistics departments

Suppliers which will be classified in one or more categories with a "C" will be blocked from supplying new parts until he submits successfully corrective actions. The presentation of the corrective actions have to be done by a meeting at BYLE or if it is necessary for understanding directly at the supplier.

8.8 Transport/Deliveries

Within the scope of its QMS, the Supplier shall ensure that the quality of its deliveries is not affected during transportation to the receiving plant and during incorporation of these deliveries into ongoing production. To ensure this, the Supplier shall use appropriate methods of transport and packaging for the delivery. BYLE reserves the right to specify the methods of transport and packaging to the Supplier.

If BYLE incurs additional costs, because the Supplier deviates from the logistics agreements entered into with BYLE, BYLE can bill the Supplier for these costs. BYLE is particularly entitled to reject deliveries supplied in defective packaging, damaged containers and containers that are not clearly identifiable, and/or charge for the additional costs that it incurs.

The Supplier shall supply a detailed list of all logistics costs, and, in particular, transport and packaging costs incurred by BYLE for the delivery.

The Supplier is obliged to meet all the delivery deadlines and quantities exactly and ensure this by installing controlled processes and/or performing appropriate checks. If deviations in delivery dates or quantities do occur and thus generate higher costs, and especially increased freight costs, these are to be recorded and BYLE notified accordingly. The cause of these deviations shall be identified. If errors in the process are the cause, immediate and appropriate corrective action shall be taken.

9. Product safety, product liability and warranty

Deficiencies in product safety may result in liability claims against the Supplier. Therefore, the Supplier's QMS is to be structured and arranged in such a way that any defects can be reliably prevented. The corresponding sections of the BYLE Terms and Conditions of Purchasing apply. The Supplier agrees to take up an insurance policy that adequately covers damages that may arise from being supplied with defective parts by sub-contractors.

10. Adaptation to market requirements

Insofar as limits or procedures and practices are referred to or agreed upon in this Agreement and other applicable documents, BYLE can change them unilaterally if market conditions so require. Market conditions require this, in particular, when customers of BYLE make corresponding demands. The introduction of said changes shall take place in mutual agreement.

11. Validity

This QAA is of indefinite term and can be terminated in writing, by registered mail with a return receipt, by giving notice of 6 months at the end of the calendar year, and, at the earliest, two calendar years after this Agreement has been signed. However, the QAA still applies to all deliveries for projects awarded to the Supplier prior to termination of this QAA.

12. Written form

The written form shall prevail for this Agreement. This shall also apply to a waiver of the written form requirement. Ancillary agreements and other amendments and additions to this Agreement shall also be agreed upon in writing.

13. Severability

If any provision of this Agreement proves to be invalid under applicable law, it shall not affect the validity of the remaining provisions of this Contract. The parties undertake to amend the ineffective provisions so that they are permissible under applicable law and come as close as possible to their original commercial purpose.

14. Applicable law/Jurisdiction

The law of the Federal Republic of Germany applies exclusively to this QAA and the entire legal relationship between BYLE and the Supplier, under exclusion of private international law and the United Nations Convention on Contracts for the International Sale of Goods (CISG).

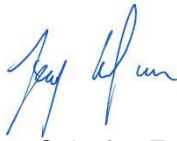
Exclusive jurisdiction for matters arising out of this legal relationship is Mannheim and also, at the discretion of BYLE, the jurisdiction of the Supplier.

Neuhausen-Hamberg, 2016-07-01

Bystronic Lenhardt GmbH

A handwritten signature in blue ink, appearing to read "Michael Rudloff".

Michael Rudloff
Managing Director

A handwritten signature in blue ink, appearing to read "Jörg Schäfer-Erlinger".

Jörg Schäfer-Erlinger
Manager Quality Management

Supplier

Date

Company stamp and signature