



SUPPLIER QUALITY MANUAL

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Vald. Birn A/S comprises the following companies.

Unless otherwise documented, the requirements contained in this manual are valid for all units in the BIRN group.

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Preface

This manual has been created to assist our suppliers in understanding the purchasing expectations and quality requirements for products/provided processes and or services that will directly impact the quality of a BIRN group final product.

These guidelines are valid for all BIRN group locations worldwide.

Note: In this document, Vald. Birn A/S and all affiliates will be referred to simply as BIRN. This manual will be reviewed and updated when needed. The latest released version is available to all suppliers at the BIRN Supplier page. The current web location for this page is: <http://www.birn.com>.



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1 Introduction

1.1 Scope

This manual has been developed to communicate the operating principles, general expectations, requirements and procedures of BIRN. Adherence to the guidelines described in this manual is required by all BIRN suppliers and their supply chain. Acceptance of any and/or all purchase orders constitutes acceptance and commitment on behalf of the recipient to comply with this manual's content. This manual and the General trade terms are provided as a supplement to, and does not replace or alter, any purchase agreement or requirements included in applicable engineering drawings, specifications and other contractual documents. Consequently, any deviation to a particular requirement must be separately defined in a purchase agreement.

This Manual describes the minimum requirements for which the supplier has responsibility. However, system improvements that exceed the requirements specified within this manual are always encouraged.

BIRN's suppliers are responsible to communicate and ensure conformity to BIRN's requirements throughout the entire supply chain.

1.2 Purpose

Both BIRN and supplier must strive for a fundamental quality management system that provides for continuous improvement in the quality of product, processes, delivery and services. Emphasis should be on defect prevention and the reduction of variation throughout the supply chain.



2 BIRN Expectations

2.1 Product quality

Zero-defect products are required from suppliers to BIRN. Any deviation from this will result in rejection and return of the product to the supplier, although in some cases, an agreement can be made between BIRN and supplier to repair or rework the product. In all cases subsequent charges will be attached.

Payment by BIRN shall not constitute acceptance. Even after acceptance of a shipment, BIRN reserves the right to return any material that proves to be defective for full credit. Defective material will be returned at the supplier's expense and account debited accordingly. Additional charges for, but not limited to sorting, administrative fees (see section 6.1), and other related costs, such as extra transport, and customer charges/claims/penalties put forward by BIRN's end customer, including product liability and re-call campaigns, will also be added. BIRN reserves the right to withdraw these charges from payments to the supplier.

2.2 Delivery

BIRN requires all suppliers to provide on-time delivery performance with the correct quantity, packaging and pricing as agreed upon. Monitoring of performance levels in this area will be ongoing with formal reporting monthly. To further clarify this, we consider unauthorized early or late deliveries and partial or over shipments to be unacceptable. The quantity shipped per order or release cannot vary from specified quantity without the consent of the planner who is responsible at the receiving plant.

The supplier shall pack, label and ship products according to the agreed packaging instruction and shipping agreement.

2.3 Cooperative management attitude

BIRN expects our supplier's top management to share our commitment to meet or exceed our customer's quality expectations through continuous improvements. It is also expected that they will give their full support to a good relationship between our companies and demonstrate flexibility in assisting BIRN in meeting all our customer's requirements.

2.4 Rights to verification of products/processes

BIRN reserves the right to verify the products/processes on the supplier's premises by a representative. This can be done by different kinds of audits and the supplier will be notified in a timely manner.

2.5 Non-disclosure Agreement (NDA)

A potential supplier must sign an NDA to regulate the protection of business information before engaging in detailed discussions.



3 Quality Requirements

3.1 Quality Management System

Suppliers are responsible for the development, documentation, implementation and maintenance of a quality management system that is certified to ISO 9001. Suppliers (for automotive products) are encouraged to become certified to the quality management system standard IATF 16949. This is to ensure that supplier's products conform to the identified purchase specifications, engineering or material specifications and/or contract requirements.

Suppliers must also guarantee that sub-suppliers have provided for adequate quality-assurance measures. Suppliers to BIRN are solely responsible for all purchased subcomponents used in their products/services.

3.2 Environmental Management System

BIRN has established an environmental management system in accordance with ISO 14001 requirements. The BIRN environmental policy contains a commitment to continuously improve environmental performance and to prevent environmental pollution and uphold relevant laws and regulations. BIRN transfers this self-commitment to all suppliers.

3.3 REACH

The REACH-regulation (EC) nr. 1907/2006 is an EC-Regulation on chemicals. REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals. Suppliers shall comply with all applicable REACH requirements that affect the products that they supply to BIRN.

BIRN shall not be regarded and will not act as an importer of chemical substances and/or preparations under REACH.

3.4 BIRN Substance Black/Grey List

Supplier must not use or supply products and substances that are on BIRN Black/Grey List. Suppliers must ensure that the latest version of BIRN black/grey list is used, and the BIRN supplier is solely responsible for ensuring updates are communicated internally in Supplier's organization.

As a part of the BIRN' sourcing process, potential suppliers are requested to complete the Black/Grey list template and submit it to BIRN for verification.

Latest version of BIRN supplier Black/Grey list can be found here:

<http://www.birn.com/leverandoerer.html>.



3.5 Code of conduct

BIRN has a Code of Conduct policy for responsible and ethical business behavior. BIRN encourages its suppliers to apply standard of business conduct, consistent with the principles of BIRNs Code of Conduct.

3.6 Corporate Social Responsibility (CSR) Compliance

BIRN are committed to CSR aspects in the international community. BIRN transfers this commitment to all suppliers and expect all suppliers and sub-suppliers of products/processes/services to adhere to CSR guidelines.

3.7 Regulatory Compliance

In general, BIRN expects all suppliers to comply with all applicable national and international legal requirements. Suppliers to BIRN are solely responsible for ensuring that all their sub-suppliers comply with applicable regulations/guidelines and legal requirements.

3.8 Material Safety Data Sheet

A material safety data sheet in accordance with EU guidelines must be sent and approved by the receiving plant before delivery is allowed, of any chemicals used in production processes.

3.9 IMDS (International Material Data System)

The supplier is responsible for reporting all substances and components, delivered to BIRN, to the IMDS register when required.

3.10 Tools & Gauges Labeling

All tools & gauges, property of BIRN or belonging to BIRN on the behalf of BIRN customers, must be properly labeled and registered as being BIRN property, by the supplier according to BIRN requirements.

An inventory of BIRN owned tooling equipment shall be done once a year.

3.11 Disaster Recovery and Business Continuity Plan

Supplier shall implement a risk management and disaster recovery plan for potential catastrophes or work interruptions that would interrupt the supply of their product/processes/services to BIRN. This plan shall as a minimum include contingency plans to address interruptions due to material supply, transportation, computer, personnel or sub-supplier issues.

As part of the contingency plan, the supplier is recommended to locate other locations with identical or substitute production equipment and possibly establish emergency agreements with those manufacturers.



3.12 Document & Product Sample Retention

Documents, records, data and reference samples that are elements of the PPAP submission, must be maintained for the length of the time that the product/process/services is active including spare parts (when the product/process is being supplied to BIRN for original equipment or service applications) and plus 15 additional calendar years after the normal production and the production of spare parts has stopped.

Quality requirement documents and quality records must be maintained for the length of at least 15 years after the product/process has been discontinued.



4 Supplier Selection and Performance

BIRN has a defined procedure for selecting and evaluating new suppliers. A supplier may be the manufacturer of the product to be delivered, a process provider who modifies a BIRN responsible product or a distributor of products.

The target is to use a supplier only after it has been established that the supplier can fulfill BIRNs requirements.

Dependent on the supplier approval category and type of product to be delivered to BIRN, the BIRN requirements for the supplier may vary and will be agreed during the preliminary negotiations.

The supplier is approved for use only after positive results from an overall evaluation of registration documents, audit results, meetings with supplier, supplier’s experiences and delivered sample parts.

A supplier approval given by BIRN does not imply an obligation for BIRN to place any orders at this supplier.

4.1 Audits

BIRN reserves the right to conduct process audits according to IATF 16949 at the supplier’s site or at any sub-supplier site at any time to evaluate the supplier’s production line and process capability to produce parts according to BIRNs requirements.

BIRN employs several audit/assessment tools to ensure that suppliers meet appropriate quality levels. These tools are used at various stages throughout the supplier approval and supplier development process, as well as in case of any problems during serial production.

Audit types include the following:

Supplier Stage	Audit Type	Done by BIRN	Self-assessment
Selection / Approval	Site Assessment	X	
	VDA 6.3 Potential analysis	X	X
Development	VDA 6.3 Process Audit, Section 2-7	X	X
Product/Process release	VDA 6.3 Process Audit, Section 2-7	X	X
Co-operation	VDA 6.3 Process Audit, Section 2-7	X	X
Escalation	VDA 6.3 Process Audit, Section 2-7	X	X

During the selection and approval process, BIRN retains the right to perform a Site Assessment and a Potential Analysis at the supplier, to determine the supplier’s technical capability and potential of the supplier’s manufacturing process, to provide products and services that meet BIRN’s requirements.



The Site Assessment must be based on processes/equipment like those that are needed for the manufacturing of products/services to be supplied to BIRN.

The Process Audit is aimed to assess the effectiveness/efficiency of all relevant processes to evaluate the process performance, internal non-compliances in the process, staff competence, production capacities and others.

Supplier shall perform self-assessments where applicable at least 3 weeks before a BIRN Process Audit. Complete access must be granted to all phases of the manufacturing and business processes.

Depending on the results of an audit, the supplier or its sub-supplier is required to establish and implement an action plan, which shall be defined and agreed upon within the context of the audit.

The Criteria for need/frequency of the 2nd party audit is determined based on a supplier risk assessment which is carried out regularly over the year.

4.2 Evaluation

BIRN will make frequent supplier evaluations. Target of the evaluations is to identify and report good or bad supplier performances, and to make opportunities for improvements visible and transparent. The evaluation results will be reported internally at BIRN as well as externally to the supplier.

Supplier evaluation will be based on the following:

- On-time deliveries.
- Full deliveries.
- Complaints.
- Co-operation between BIRN and supplier.

4.3 Escalation

BIRN has a defined process for supplier escalation, and includes the following steps:

- Remedial actions -> BIRN can initiate the remedial action step when the supplier does not meet BIRN requirements. Supplier has to inform BIRN about the remedial actions that has been initiated, including supplier responsible persons and deadline. BIRN will monitor the effectiveness of these remedial actions.
- Escalated remedial actions -> BIRN will initiate a management level meeting and present deviances, expectations and reporting process to the supplier.

BIRN escalation process may be triggered by the following situations:

- Insufficient quality performance.
- Insufficient delivery performance.
- Insufficient co-operation.



5 Quality Assurance

The supplier must guarantee that supplied products meet the required quality targets during production. All necessary actions to assure quality, needs to be performed at the supplier.

In case of an identified quality setback, suppliers shall investigate the root cause(s), identify and implement containment and corrective actions to avoid any negative impact on supplies to BIRN. BIRN expects to be informed by supplier proactively on these issues and BIRN reserves the right to request an 8D report (see appendix C).

See chapter 6 for requirements to the complaint handling process.

5.1 Production Part Approval Process (PPAP)

The PPAP procedure shall provide evidence that all requirements in the drawing and specifications are met and that the product is manufactured in a controlled and capable process. Before start of serial production, the supplier has to submit the required PPAP documentation to BIRN, and then wait for BIRN approval.

A PPAP agreement will be signed between BIRN and supplier, where it is mentioned which level and amount of documentation is necessary for each product (see appendix B).

Suppliers are expected to adhere to the production processes and product documented in the PPAP. If/When a deviation from these are needed, supplier must obtain written approval from BIRN before shipment of the product.

5.2 Statistical Process Control (SPC)

The supplier must verify capability with the help of SPC for specific product and process characteristics. It must be proven that the product is produced with capable and controlled processes. For the machine capability (cmk) as well as for the process capability (cpk) the value of minimum 1,67 (short term) & 1,33 (long term) must be maintained and verified.

In the event of noncompliance with the capability requirements, the supplier is required to perform 100 % inspection. VDA standards, the AIAG PPAP and SPC manuals provide requirements and methods for the calculation of capability.

5.3 Traceability & Storage management

All suppliers to BIRN must have an identification system that distinguishes one lot/batch/part from another when shipping products/processes/services. Each lot/batch/part of material should be clearly identified on the product (where applicable) according to the part drawing or as agreed if not specified on the drawing, and on the product packaging. The traceability system must comply with the FIFO (first in – first out) principles for incoming and outgoing material.

Supplier must maintain a product change history to keep a history of all changes to the product/process delivered to BIRN.



5.4 Faulty Products

At the supplier:

- The supplier must ensure that all non-conforming products are clearly labelled and separated from conforming parts in all processes and areas.
- Systems must exist to ensure that non-conforming products are not used in production or shipped to BIRN or BIRN's customers.

At BIRN:

- Should the supplier suspect/discover that there is a possibility that non-conforming material has been delivered to BIRN, the supplier is responsible for immediately informing BIRN SQA (sup.q@birn.dk).

5.5 Changes

Requested by supplier:

- In the case of changes requested by supplier, which will include changes to the manufacturing materials, processes, services, or locations as well as any design changes, the supplier shall submit a Product Change Notification (PCN) to BIRN.
- It is required that the supplier notifies BIRN as far in advance as possible to give BIRN the opportunity to examine the consequences of the change. Implementation of such change is only permitted after approval by BIRN.
- A Production Part Approval Process (PPAP) of the part and process may be requested if the change is approved.



6 Complaint Handling

Suppliers are responsible for providing defect-free product/services on time, correctly packed and at the specified quantities/quality to BIRN and BIRN's customers. When quality or delivery issues do occur, the supplier is required to initiate problem-solving, containment and corrective actions to resolve the issue and prevent reoccurrence, using the 8D format.

6.1 Timeline requirements

A copy of the BIRN complaint will be distributed to the supplier when defective material has been found.

- Initial containment must be completed and returned latest within 24 hours (D1 to D3 to be completed).
- Long-term actions must be defined and reported within 7 workdays unless otherwise agreed (D4 to D7 to be completed).
- 8D to be completed within 10 days unless otherwise agreed.

BIRN reserves the right to charge a flat rate admin fee of 150 Euro per complaint in the case of repeated and/or serious deviations/lack of feed-back.

6.2 Containment Action (D3)

Initial containment action shall ensure that further shipment of affected parts/services to BIRN is avoided, and that affected parts at BIRN or within the supply chain can be identified and separated.

Supplier shall ensure that the supply to BIRN will not be disrupted.

6.3 Root Cause Analysis (D4)

Supplier shall use a systematic approach for root cause analysis based on findings during failure confirmation, review of production/processes and physical analysis. In general, a non-destructive analysis method should be preferred over those that might destroy the failure condition.

6.4 Corrective Action (D5 & D6)

Supplier shall identify corrective actions for all identified occurrences and devise a plan and schedule for implementation. Immediate containment actions must be kept in place until effectivity of the corrective actions has been validated to be effective.

Supplier shall identify the first date code/lot code and shipment of conforming parts and provide this information to BIRN.



6.5 Preventive Action (D7)

Supplier shall ensure that findings/knowledge gained while going through the 8D process are extended across similar products/processes. This should include review of related process FMEAs, standard operating procedures, work instructions and similar documents as well as consideration in the lessons learned process.

6.6 Problem Solving Performance

BIRN evaluates effectivity of supplier's problem-solving process based on quality performance data and 8D reporting. Insufficient performance might result in escalation and ultimately blocking of supplier for new business.



7 Repair or Rework

Under normal production circumstances, only repair or rework which has been approved by BIRN's SQA is allowed.

Where repair or rework is necessary, the supplier must ensure conformance with all applicable requirements to the products. All repaired/reworked products must be clearly identified in the delivery papers and on the product.

8 Product Discontinuation

If a product/service is to be discontinued, supplier must inform BIRN in writing as early as possible, including last time buy schedule.

9 Guidance

Should quality assurance problems occur with fulfilling the requirements from this Supplier Quality Manual or other quality standards, BIRN may be able to support the supplier regarding training. BIRN can provide assistance regarding the following topics:

- BIRN requirements.
- PPAP.
- Complaint handling (8D reporting).
- Audit.
- APQP.
- IMDS.
- Customer requirements.
- IATF 16949.
- ISO 9001.



Appendix A – Change History

Version	Description	Responsible	Date
1 ST Edition 2019	New Manual released	SAB	04-04-2019
2 ND Edition 2019	Only changes made in the Danish version, incorrect translation on page 5.	SAB	28-05-2019



Appendix C – 8D Report

TBD.



Appendix D – List of abbreviations

Abbreviation	Definition
REACH	Registration, Evaluation, Authorisation and Restriction of chemicals
CSR	Corporate Social Responsibility
IMDS	International Material Data System
PPAP	Production Part Approval Process
8D	Eight Disciplines Problem Solving
SPC	Statistical Process Control
Cmk	Machine Capability Index
Cpk	Capability Process Index
VDA	German Association of the Automotive Industry
AIAG	Automotive Industry Action Group
FIFO	First In First Out
SQA	Supplier Quality Assurance
PCN	Product Change Notification
FMEA	Failure Mode and Effects Analysis
APQP	Advanced Product Quality Planning
NDA	Non-Disclosure Agreement
TBD	To Be Defined