

Supplier Quality Assurance Manual - SQAM



June 2025

Dear Partner, Service Provider and Supplier,

Customer satisfaction regarding quality in all areas is the key criterion for the success of BSH Home Appliances Group and for you as a supplier whose PRODUCTS are integrated into BSH PRODUCTS. To satisfy the highest demands, we need reliable and competent suppliers who feel an obligation to uphold the common objectives and quality level of BSH.

We, at BSH, promise our consumer top quality and we take this responsibility very seriously. This is why we expect you, our partner, to make the same promise to us. Zero defects strategy and continuous improvement are two of the most important quality requirements for keeping this promise. Higher customer expectations make it necessary to continuously improve all PRODUCTS, assemblies, materials services and processes.

For us, quality begins with early binding and comprehensive coordination with you, our supplier, and is a priority throughout the product development process right up to series production. To ensure consistently high product quality, we provide relevant processes and documents for all coordination throughout the entire life cycle of a component.

This document does not constitute a binding document and is solely intended as an aid for suppliers of BSH when dealing with our Process Requirements. The Supplier Quality Assurance Manual is based on the contents of the Quality Management Agreement, which is signed either on its own on conclusion of a contract or in conjunction with the Framework Agreement of BSH and their subsidiaries.

This and further supporting documents can be found on the BSH ONE Communication Platform (OCP):

<https://ocp.bsh-group.com/en/documents>

We look forward to a successful collaboration!

Contents

1 Inhaltsverzeichnis

2	General Agreements	5
2.1	Quality Management System.....	5
2.2	Supplier Management for Sub-Suppliers.....	5
2.3	Auditing by BSH.....	6
3	Request for Quotation Request (RFQ-R).....	7
3.1	Feasibility Commitment	7
3.2	Tooling / Capacity Planning.....	8
3.3	Production Layout.....	8
3.4	Packaging Concept	8
4	Process Requirements.....	9
4.1	Basic Information	9
4.2	Quality Targets.....	9
4.2.1	Upper Limit 0 hours Failure Rate.....	10
4.2.2	Limit Value Field Failure Rate	10
4.3	Component Qualification Planning (CQP).....	10
4.4	Process Related Requirements	11
4.5	Part Specific Requirements.....	11
5	Product Qualification Process.....	12
5.1	Planning and procurement of systems, test equipment, and operating resources	12
5.2	Prototype Manufacturing	12
5.3	Sampling Procedure	12
5.3.1	BSH Sample Inspection Report (SIR).....	13
5.3.2	BSH CQP Check List.....	14
5.3.3	Process Flow Chart	14
5.3.4	Control Plan	14
5.3.5	Material Report	14

5.3.6	Measuring Report / Dimension Check.....	14
5.3.7	FMEA Process	15
5.3.8	Measurement Concept.....	15
5.3.9	Measurement System Analysis (MSA).....	15
5.3.10	Approval Evidence for Purchased Parts from Sub Suppliers.....	16
5.3.11	Process Assessment (Audit, 2 Days Production Release, ...).....	16
5.3.12	Supplier Declarations	16
5.3.13	Machine and Process Capability Analysis.....	16
5.3.14	Reference Samples.....	16
6	Series production	17
6.1	Cleanliness	17
6.2	Production Output	17
6.3	Planning of Series Monitoring.....	17
6.4	Final Inspection	17
6.5	Handling with defective PRODUCTS	18
6.6	Change Request and Deviations	18
6.7	Traceability and Labelling	19
6.8	Continuous Improvement Process (CIP)	19
7	Complaints	20
7.1	Complaints Procedure.....	20
7.2	Problem Solving with 8D Method	20

Terms and Abbreviation

8D	Eight Disciplines Problem Solving methodology
CIP	Continuous Improvement Process
CQP	Component Qualification Planning
CRS	Change Request Supplier
ESN	<u>E</u> inkaufs <u>s</u> chlüssel <u>n</u> ummer = Material Main Group
FIFO	First In, First Out principle, first items added to a system should be the first ones to be removed or processed
Field	In use at the customer / in the market.
FMEA	Failure Modes and Effects Analysis
FOT	First Out of Tool parts
Initial samples	Parts manufactured using the final production equipment and tools under regular production conditions
MSA	Measurement System Analysis
Pilot production	Manufacture of initial samples at the supplier's plant
PQM	Product Quality Monitoring
PRODUCTS	Goods and services produced by the BSH supplier for BSH
Reference samples	Reference samples are essential tools that help ensure accuracy, consistency, and reliability in various processes
RFQ-R	Request for Quotation Request
SIR	Sample Inspection Report
SPC	Statistical Process Control
SQE	Supplier Quality Engineer
QMA	Quality Management Agreement

2 General Agreements

Like BSH is committed to its customers, the supplier is also committed to BSH's zero-defect philosophy. The quality "0 defects" is an absolute requirement which can only be achieved through joint effort. The supplier undertakes in this context to proactively demonstrate to BSH the relevant strategy.

2.1 Quality Management System

The supplier shall employ an adequate, efficient and reliable quality management system, which must always correspond to the state of the art and shall be adapted as appropriate (e.g. management systems based on DIN EN ISO 9001 or ISO 9001). The expiry of a certificate without planned re-certification must be notified to the BSH Purchasing Manager at least three months before the expiry date. The withdrawal of a certificate must form the subject of immediate notification.

Alternatively, following approval by BSH, an audit by BSH can also serve as proof if a non-certified quality management system is used by the supplier. The supplier shall manufacture and test the PRODUCTS in accordance with the rules of the agreed quality management system.

Should it transpire that the quality management system employed does not meet the specified requirements, the supplier undertakes to immediately improve the system to ensure conformity. To this end, the supplier shall submit binding schedules, which are subject to approval by BSH.

If valid certificates and / or binding schedules are not available and the supplier is responsible for this, BSH shall be entitled to terminate existing supply contracts and the framework agreement without notice following a prior unsuccessful warning.

2.2 Supplier Management for Sub-Suppliers

The supplier shall be obliged to ensure that the execution and supply of the PRODUCTS are free of defects including all parts of PRODUCTS also supplied to him by third parties (referred to below: "sub-suppliers").

The use of sources of supply prescribed by BSH does not release the supplier from the responsibility to ensure the quality of the procured PRODUCTS.

The requirements of BSH on its suppliers shall equally apply to all sub-suppliers. All manufacturers included in the production chain must employ suitable quality management systems to guarantee the quality of the final product. The supplier is thus obliged to plan and carry out audits or to request evidence of adequate quality assurance systems from sub-suppliers. The supplier is responsible for monitoring the appropriate measures of the sub-supplier to guarantee the agreed quality.

Any planned change of a subcontractor must be reported to the BSH Purchasing Manager and approved by BSH if this is necessary after mutual agreement.

2.3 Auditing by BSH

The supplier shall allow BSH to verify whether all quality requirements of BSH are being met by supplier. Depending on the situation, this may take the form of a quality-related or technical discussion or a system, process, or product audit. BSH will announce an audit in a timely manner.

Quality management system audits will be performed by BSH according to DIN EN ISO 9001. Process audits are based on the VDA6.3 questionnaire, although auditing is not carried out accordingly. The 14 quality principles of BOSCH form a substantial part of both these types of audits.

Further supporting documents can be found on the ONE Communication Platform (OCP) → section Supplier Enabling Supporting Documents → 14Q-Basics:
<https://ocp.bsh-group.com/en/documents>

The supplier shall grant BSH access to his entire business premises and to all testing stations, warehouses, and adjacent areas in which the PRODUCTS to be supplied are developed, manufactured and / or stored. BSH shall be permitted here to inspect the procedures, documents, and records of the supplier where they might concern the QM system or the quality of the PRODUCTS to be supplied.

BSH shall inform the supplier of the result of this inspection. If corrective actions are necessary from BSHs point of view, the supplier undertakes to immediately draw up an action plan together with a binding schedule, to inform BSH accordingly and to implement it in a timely manner. The action plan and the schedule require the approval of BSH.

If necessary, BSH reserves the right to ask the supplier to arrange an audit of its sub-suppliers. BSH must be able to participate in the audit. The supplier is obliged to obligate the sub-supplier to carry out these audits when concluding the contract with the sub-supplier.

The performance of such inspections shall not lessen the contractual responsibility of the supplier for the PRODUCT.

3 Request for Quotation Request (RFQ-R)

With BSH's official enquiry requesting an offer, called Request for Quotation Request (RFQ-R), the potential supplier is receiving all relevant documents as Process Requirements, technical specifications, drawings, packaging instructions which are mandatory for the part qualification.

The Process Requirements document includes the Component Qualification Planning (CQP) checklist. Respective to the BSH's component classification A, B or C, it is defined which documents need to be provided with the offer, as mentioned under the column "Available latest until".

Component Qualification Planning (CQP)

Classification of Component A, B or C (according to BSH internal Regulation HQ R 74)	Please select
---	---------------

X: Evidence/documentation must be submitted according to the column "Available latest until"
E: Must be available on BSH's request or review during process assessment

No.	Item	A	B	C	Available latest until	Comments
1	Feasibility Commitment	X	X		offer	the Feasibility Commitment template received with Request for Quotation, must be filled out
2	Tooling / Capacity Planning	X			offer	every change requires update
3	<u>Production</u> Layout	X			offer	every change requires update
4	<u>Process</u> Flow Chart	X			sampling	every change requires update
5	Control Plan	X	X		sampling	every change requires update
6	Packaging concept as per BSH packaging specification (LV95a)	X	X	X	offer	according to Packaging Directive, every change requires update
10	Material Report	X	X	X	sampling	SIR relevant section shall be filled out
11	<u>Measuring</u> Report / Dimension Check	X	X	X	sampling	SIR relevant section shall be filled out; for catalog part data sheet acceptable

1 IMAGE OF CQP CHECKLIST - OFFER

With his offer, supplier acknowledges the fulfillment of the requirements for component qualification and the further contractual obligations.

Deviations, risks, and further information on contractual bases must be indicated via the feasibility study (Feasibility Commitment) and agreed with BSH before conclusion of the contract.

3.1 Feasibility Commitment

In the framework of the contractual review, the supplier must check all commercial, logistical and technical specifications such as drawings, CAD data or test instructions whether it is feasible (by use of internal checklists, technical feasibility studies, capacity planning, cost analyses, packaging requirements, FMEA). The Feasibility Commitment, received with RFQ-R is focusing on individual aspects of the contract review. The supplier must answer all questions in this document and enter appropriate responses.

B/S/H/	Feasibility Commitment		Doc.-ID: 60100004704846 Revision: D1 Date: 2025-01-09
Project / Part Description:			
Material Number(s):		Drawing No. / Revision:	
Basis for Assessment:	<input type="checkbox"/> For Quotation <input type="checkbox"/> Update	RFQ No.:	
Supplier Name Address / Plant:			
Team Members Supplier:	Plant / Dept.:	Function:	Mail / Phone:

2 IMAGE OF FEASIBILITY COMMITMENT DOCUMENT

3.2 Tooling / Capacity Planning

The supplier must submit a binding declaration relating to tooling plans and mold cavity data, in addition to the maximum production rate, prior to final award. The ramp up/disposition plan must be considered into the time schedule planning. The tooling / capacity plan must be updated with the project progress and series production.

3.3 Production Layout

The production layout is a diagram showing the production equipment of the production facility planned for manufacture of the components/assembly specified in the offer. This diagram must largely correspond to the local circumstances and link up with the process flow chart.

3.4 Packaging Concept

The supplier is responsible for the packaging of its components. It must be designed so that the PRODUCT cannot become damaged or soiled through external influences during shipment.

The Packaging Specification made by BSH as regards the handling of load carriers and materials must be observed, as well as regulations on packaging, logistics and environmental protection.

The planned Packaging Concept is part of the offer and will be evaluated in terms of its quality-specific requirements and capabilities.

4 Process Requirements

The Process Requirements, received with RFQ-R, describe component-specific requirements made on the supplier by BSH Supplier Quality Engineer (SQE). This includes the manufacturing and quality assurance processes, as well as additional requirements with technical relevance that are not described in the drawing or specifications.

The Process Requirements document is structured with individual chapters (Basic Information, Quality Targets, Component Qualification Planning, Process Related and Part Specific Requirements).

In the event of changes of the information provided in the following documents, the supplier must send an updated copy to BSH proactively.

B/S/H/ Quality Directive	Process Requirements PR_Cx_ESN_part name / BSH Template	Doc.-ID: 6010004704447 Rev, Seq: C1 Date: 1/14/2025
-----------------------------	--	---

Content

Explanations	1
Basic Information	2
Quality Targets	2
Component Qualification Planning (CQP)	3
Process Related Requirements	4
Part Specific Requirements.....	4

Explanations

The aim of this document is to describe the component specific process requirements, including manufacturing and quality assurance processes of the supplied parts.
The Component Qualification Planning (CQP) defines which information (documents) must be provided by the supplier together with the sampling inspection report (SIR), depending on the CQP-classification of the component.
For detailed information, please refer to the BSH **Leaflet on Sampling**.
As an additional service, BSH offers the **Supplier Quality Assurance Manual** to support compliance with BSH procedures.

Go to: BSH homepage → About BSH → Global Supply Chain → Additional Documents → Section Quality & Environment:

<https://ocp.bsh-group.com/en/documents#section-quality>

3 IMAGE OF PROCESS REQUIREMENTS TEMPLATE

4.1 Basic Information

BSH consists of different Product Families/ Categories. Different requirements may result for a PRODUCT identified in the Information field "Product Family/ Category".

The field "Material Group ESN" is an internal BSH instrument used to classify PRODUCTS into main groups out of similar materials.

Further part specific information as Material Number, Drawing Number, and Specification Number can be optionally filled out during technical discussion or placement meeting.

4.2 Quality Targets

The quality targets not only define the upper limits for 0-hours failure rate, but also failures experienced by BSH's end customers, called Field Failure Rate (FFR).

In case of defects of the PRODUCTS BSH has rights, which are in detail described in the Framework Agreement for the Purchase of Production Material and Spare Parts.

The Limit Values defined in the Agreement on Conditions pursuant Attachment 2 to the Framework Agreement, are key figures used to assess the reliability and performance of the PRODUCTS.

The supplier is obliged to plan measures to establish and maintain its own quality assurance system with all accompanying activities to achieve and verify the level required for fulfilment of mutually agreed quality targets.

4.2.1 Upper Limit 0 hours Failure Rate

The 0 hours Failure Rate refers to the failure rate of a PRODUCT that has not yet experienced any failures over a specified period, in this case, zero hours of operation.

PPM ("parts per million") is used to denote the number of defects per million units delivered to BSH. For instance, if the supplier delivers 1 million PRODUCTS and 50 are found defective at BSH, the defect rate would be 50 PPM.

$$\text{Upper Limit 0 hours Failure Rate [ppm]} = \frac{\text{nonconforming PRODUCTS}}{\text{delivered PRODUCTS}} \times 1.000.000$$

All defects or deviations that were not previously agreed with BSH will result in a complaint.

If BSH discovers a defect in a PRODUCT and the PRODUCT is part of a delivery batch and the inspection of each PRODUCT in this batch involves a considerable amount of work, BSH is authorized to reject the entire batch.

4.2.2 Limit Value Field Failure Rate

The Limit Value Field Failure Rate describes the number of supplier-caused defective PRODUCTS in the field that leads to a customer's complaint during a defined (warranty) period (1st, 2nd and 3rd year) and a service call with components or device exchange.

Defects brought to BSH's attention are processed and rectified by its customer service. If customer service finds from its inspection that a defect involves the supplier's final PRODUCT, this defect will be recorded in BSH Product Quality Monitoring (PQM) system.

The calculation method is detailed described in the Framework Agreement.

4.3 Component Qualification Planning (CQP)

The Component Qualification Planning (CQP) should provide an overview of the specific BSH requirements, which are mandatory for the part and process qualification. The part classification (A/B/C) is done by BSH SQE according to the anticipated part criticality. The part classification defines the scope of required release documents, which need to be provided for sampling, as mentioned under the column "Available latest until".

Component Qualification Planning (CQP)

Classification of Component	A, B or C (according to BSH internal Regulation HQ R 74)	Please select
-----------------------------	--	---------------

X: Evidence/documentation must be submitted according to the column "Available latest until"
 E: Must be available on BSH's request or review during process assessment

No.	Item	A	B	C	Available latest until	Comments
1	Feasibility Commitment	X	X		offer	the Feasibility Commitment template received with Request for Quotation, must be filled out
2	Tooling / Capacity Planning	X			offer	every change requires update
3	Production Layout	X			offer	every change requires update
4	Process Flow Chart	X			sampling	every change requires update
5	Control Plan	X	X		sampling	every change requires update
6	Packaging concept as per BSH packaging specification (LV95a)	X	X	X	offer	according to Packaging Directive, every change requires update
10	Material Report	X	X	X	sampling	SIR relevant section shall be filled out
11	Measuring Report / Dimension Check	X	X	X	sampling	SIR relevant section shall be filled out; for catalog part data sheet acceptable

4 IMAGE OF CQP CHECKLIST - SAMPLING

4.4 Process Related Requirements

Process related requirements refer to the specific guidelines and criteria that outline how a particular manufacturing or operational process should be conducted. These requirements are crucial to ensure that the processes are carried out efficiently, safely, and consistently, leading to high-quality outcomes. The standards of BSH supplier Audit are assumed and not repeated here.

Examples of specific process related requirements:

- Equipment and Tool Specifications: Guidelines on the types of equipment and tools to be used in the process, including maintenance requirements, calibration standards, and operational constraints.
- Risk Management: Processes for identifying, assessing, and mitigating risks associated with the operations, including contingency plans for potential issues.
- Documentation and Record Keeping: Requirements for maintaining records of the process, including production logs, inspection documents, and compliance reports, to ensure traceability and accountability.

4.5 Part Specific Requirements

This section formulates additional requirements, which are not mentioned on the drawing and technical specification, such as further characteristics for quality controls or catalogue of permissible deviations. Understanding these part specific requirements is crucial to ensure product reliability, compliance, and overall quality during production at supplier, assembly at BSH and during the lifetime of the PRODUCT.

5 Product Qualification Process

5.1 Planning and procurement of systems, test equipment, and operating resources

All systems and operating resources for the manufacture of the component must be planned and procured in such a manner that they are available with sufficient capacity at the latest by production of "First Out of Tool" (FOT) parts on the date for initial sampling.

In addition, all devices and the internal and external mode of transport must also be taken into consideration here.

The supplier determines the test methodology for all characteristics with the corresponding test equipment.

Evidence of suitability and maintenance of own and provided systems, test and operating equipment must be provided. Where using more than one device or multi-cavity molds, evidence of capability and suitability must be provided individually.

5.2 Prototype Manufacturing

For prototype parts from an experimental toll, a prototype test report must be submitted on initial delivery and in the event of changes (index / part number). In this report all drawing characteristics and the scope of changes must be evidenced on at least one part. Any further scope of documentation required here will be specified in each case by the SQE.

Prototype deliveries should be additionally appropriate labeled.

5.3 Sampling Procedure

With Request for sample order (RFO), the supplier receives the initial Sample Inspection Report (SIR), which needs to be filled.

The supplier shall send the electronically completed SIR and further documents to the email address prefilled by BSH or shall use a portal specified by BSH.

Sample Inspection Report				B/S/H/	
Request for Order-No.		Rev.			
Supplier Report No.		Rev.			
Release Plan No.		Rev.			
Supplier Address					
Company Name					
Street Name					
Post Office Box					
Zip Code		City		Part Designation	
Country		BSH Drawing No.			
Supplier No.		Production Location		Drawing Status	
Project					
SIR Recipient (please send all sampling documents to following E-Mail address)					
E-Mail:					
BSH Hausgeräte GmbH		Quantity Ordered		Change Request (BSH)	
		<input type="checkbox"/> Initial Sample Inspection		<input type="checkbox"/> Subsequent Inspection	
Reason for sampling:					
<input type="checkbox"/> New Part		<input type="checkbox"/> Production Relocation			
<input type="checkbox"/> Part Modification		<input type="checkbox"/> Changed Production Conditions			
<input type="checkbox"/> New Sub-Supplier		<input type="checkbox"/> Long Delivery Interruption			

5 IMAGE OF SIR COVER PAGE

Please follow the detailed explanations on “Leaflet on Sampling” and “SIR Instruction Supplier” documents.

Leaflet on Sampling and SIR instruction Supplier and exemplary SIR template can be found on the ONE Communication Platform (OCP) → section Quality Management → Release Management → Sampling:
<https://ocp.bsh-group.com/en/documents>

5.3.1 BSH Sample Inspection Report (SIR)

The cover sheet of the SIR is the only mandatory document for a release decision (Release, Limited Release or Not Released) given by the BSH SQE.

If, by way of exception, only a “Limited Release” can be issued by BSH SQE, the supplier may make deliveries only in accordance with the details defined in the SIR cover sheet (until date, quantity, remarks to decision). If “Not Released” has been issued, regular deliveries are not permitted.

Beside the cover sheet further SIR pages of the excel file need to be filled.

- BSH CQP Check List
- Measuring Report (per single part)
- Components List
- Process Capability
- Material Report

<input type="checkbox"/> Release <input type="checkbox"/> Limited Release until Date: Quantity: <input type="checkbox"/> Not Released	Remarks to decision:
--	----------------------

SIR cover sheet
BSH CQP Check List
Measuring Report 1
Measuring Report 2
Measuring Report Master
Components List
Process Capability
Material Report

6 IMAGE OF SIR PAGES

Due to many links and formula inside the excel file, it is not permitted to delete any of the pages.

Some of required items from the CQP Check list can be filled in the SIR directly. Some other need to be provided as separate document.

5.3.2 BSH CQP Check List

In accordance with Process Requirements CQP the required documents need to be provided with the SIR.

Process Requirements CQP

Component Qualification Planning (CQP)

Classification of Component A, B or C (according to the component's complexity)

X: Evidence/documentation must be submitted according to the column "available latest until"
E: Must be available on BSH's request or review during process assessment

No.	Item	A	B	C	Available latest until	Comments
1	Feasibility Commitment	X	X		offer	the Feasibility Commitment template received with Request for Quotation, must be filled out
2	Tooling / Capacity Planning	X			offer	every change requires update
3	Production Layout	X			offer	every change requires update
4	Process Flow Chart	X			sampling	every change requires update
5	Control Plan	X	X		sampling	every change requires update
6	Packaging concept as per BSH packaging specification (LV95a)	X	X	X	offer	according to Packaging Directive, every change requires update
10	Material Report	X	X	X	sampling	SIR relevant section shall be filled out
11	Measuring Report / Dimension Check	X	X	X	sampling	SIR relevant section shall be filled out; for catalog part data sheet acceptable

SIR CQP Check List

Sample Inspection Report
CQP Check List

Supplier Report No.	Rev	Supplier	
Reference Plan No.	Rev	Serial No.	
		Test No.	

QM department

Remark: Independent of the request, available on request and i
Prior to placement of ord
The signed component q
receipt without explicit re

No.	Item	A	B	C	Status	Comments
1	Feasibility study/ commitment (based on requirements)	X	X		-	
2	Tooling / Capacity Planning	X			-	
3	Production Layout	X			-	
4	Process flow chart	X			-	
5	Control Plan	X	X		-	
6	Packaging concept as per BSH packaging specification (LV95a)	X	X	X	-	
10	Material report/ Material test				-	
11	Measuring report / Dimension check	X	X	X	-	

7 PICTURE OF PROCESS REQUIREMENTS CQP AND SIR CQP

5.3.3 Process Flow Chart

The process flow chart is a simplified portrayal of the entire production sequence. It may form part of the control plan or be generated in a separate document. The process flow chart links up with the production layout, and comprehensible assignment to the control plan must be possible here.

Where more than one production, storage or test facility is planned for manufacturing, this must be clearly recognizable as such.

5.3.4 Control Plan

The control plan specifies what is to be tested, when, how, by whom and the scope of testing. It contains the necessary information and quality assurance measures which are required during the entire production process to guarantee the quality of the final product. The production flow shown in the process flow chart must be reflected in the control plan.

5.3.5 Material Report

The material report shall be filled out for any used part or component in the SIR page "Material Report". Please follow the detailed explanations on "SIR Instruction Supplier" document available on OCP.

5.3.6 Measuring Report / Dimension Check

The measuring report shall be filled out for any used part or component in the SIR page "Measuring Report". Please follow the detailed explanations on "SIR Instruction Supplier" document available on OCP.

The measuring report contained in the SIR is used to check the actual values against the specified values plus the tolerance from the design drawing. If the actual value exceeds the tolerance, this value is automatically highlighted in red.

The submission of initial samples with deviations from the nominal value and the tolerances are fundamentally not permitted without agreed exception by BSH SQE.

If available, the supplier needs to include the measurement machine protocol or measurement machine report as an additional document to the SIR.

5.3.7 FMEA Process

The Failure Modes and Effects Analysis (FMEA) is a systematic, proactive method used to identify potential failure modes in a product or process, assess the impact of those failures, and prioritize the risks associated with them. The purpose of FMEA is to improve reliability, increase safety, and minimize risk in design and manufacturing processes.

The prioritized failure modes, based on the risk priority number (RPN), focusing efforts on the most critical ones that require corrective actions or improvements.

The developed and implemented strategies to reduce or eliminate the risks associated with high-priority failure modes must be reflected in the process and control plan.

FMEA is an ongoing process that should be revisited periodically to update the analysis based on new information, changes in processes, or lessons learned.

The participation of BSH in FMEAs shall take place by mutual agreement. BSH must be immediately informed of any necessary design changes by using the Change Request Supplier document (CRS). The process FMEA remains with the supplier, who shall permit BSH to inspect the documentation at any time on request.

5.3.8 Measurement Concept

The supplier must prepare a list itemizing the parts-specific test / measurement equipment (possibly integrated into the control plan). The Measurement Concept remains with the supplier, who shall permit BSH to inspect the documentation at any time on request.

5.3.9 Measurement System Analysis (MSA)

Measurement System Analysis (MSA) is a crucial component in quality management and is primarily used to assess the accuracy and reliability of measurement systems. It's essential for ensuring that the measurements taken during testing, inspection, or production are trustworthy and can accurately reflect the true values of the characteristics being measured.

The supplier must draw up an MSA study in terms of reduce variability in measurement processes, identifies opportunities for improving measurement systems and techniques, ensuring that the data-driven decisions are based on precise and accurate measurements. The MSA remains with the supplier, who shall permit BSH to inspect the documentation at any time on request.

5.3.10 Approval Evidence for Purchased Parts from Sub Suppliers

Evidence of release for parts bought in from a sub-supplier (sample inspection report, materials certification, process evaluation, etc.) must be available by the time the initial samples are produced. The Approval Evidence remains with the supplier, who shall permit BSH to inspect the documentation at any time on request.

5.3.11 Process Assessment (Audit, 2 Days Production Release, ...)

The process assessment at the supplier's premises under series production conditions forms an integral part of the CQP for complex parts mostly with the Q-classification A.

5.3.12 Supplier Declarations

The supplier must disclose to BSH all declaration documents for substances and materials in their entirety. Where relevant, this includes the submission of a valid Food Contact Declaration. The availability of these documents is a prerequisite for the release of parts and assemblies. The preferred platform to provide the declarations is the OCP portal.

Supporting User Guide and OCP-Logon to Material Compliance App can be found on the ONE Communication Platform (OCP)

→ section Environment /Material Compliance:

<https://ocp.bsh-group.com/en/documents>

5.3.13 Machine and Process Capability Analysis

The individual values of machine and preliminary process capability analysis shall be filled out in the SIR page "Process Capability".

A full report incl. raw data (individual measurements) for each specified dimension as per drawing or other technical requirement document is to be submitted. The format of the report is freely selectable, e.g. exportable reports from the supplier's CAQ system, customized Excel files, or similar. Optionally, the template provided on the BSH OCP platform can also be used.

The proof of long-term process capability is to be submitted to BSH without request as soon as possible.

For further information and details on determining process capability evidence please follow the detailed explanations in BSH Leaflet on Sampling and SIR Instruction.

5.3.14 Reference Samples

Reference Samples, also known as limit samples, refer to items or specimens used in quality assurance and control processes to define acceptable limits or thresholds for specific characteristics during inspections or assessments. These samples help ensure consistency and reliability of properties that are difficult to specify, such as surface accuracy, structure, color, haptics as well as form fit to connecting parts. Reference samples are parts retained from pilot production at the supplier's plant and must be preserved by the supplier.

It is important to document the characteristics and acceptance criteria of the upper and lower limits, as this ensures clarity and uniformity in quality assessments at the supplier and at BSH side.

The release of reference samples is documented with the SIR. Reference samples are valid and stored throughout the whole production lifetime of the product.

6 Series production

6.1 Cleanliness

Cleanliness is a fundamental prerequisite for the manufacture of high-quality PRODUCTS. BSH expects the suppliers to focus on this basic requirement as appropriate. The supplier is responsible for the cleanliness of its parts and packaging, considering any residual soiling requirements of BSH.

6.2 Production Output

The supplier undertakes to ensure its quality at the start of series production with appropriate measures (Run@Rate, pilot production, quarantine stock production etc.).

6.3 Planning of Series Monitoring

All product and process characteristics are in principle important and must be observed.

The testing scope for special characteristics requires evidence of process capability. To this end the supplier must monitor these characteristics with appropriate methods, e.g. using Statistical Process Control (SPC) charts.

Leaflet on Sampling and a useful template for Statistical Calculation can be found on the ONE Communication Platform (OCP)
→ section Quality Management → Release Management → Sampling:
<https://ocp.bsh-group.com/en/documents>

6.4 Final Inspection

The supplier is required to perform a Final Inspection referring to the last phase of the quality control. In case the supplier is unable to reliably ensure that all relevant product characteristics are met during production, the regular performance of a random product audit with a defined scope is stipulated.

The goal of the final inspection is to ensure that the product meets the required specifications, quality standards, and agreed quality targets before delivery to BSH. Quality issues that are not caught before delivery can lead to returns, warranty claims, and damage to a BSH's reputation.

Key aspects of final inspection:

- **Purpose:** The primary purpose is to verify that the product is free from defects and meets the established requirements. This can include checking for functionality, aesthetics, dimensions, and other critical features.
- **Types of Inspections:** Final inspections can be visual (checking for physical defects), functional (ensuring that the product works as intended), or dimensional (verifying measurements against supplier's internal and BSH specifications).
- **Documentation:** Inspection results are typically documented in the Control Plan, and any discrepancies or defects are noted. This documentation can be used for auditing purposes and to inform necessary corrective actions.
- **Pass/Fail Criteria:** At the end of the final inspection, the product is usually classified as a "pass" (suitable for delivery) or a "fail" (requiring rework or rejection).

6.5 Handling with defective PRODUCTS

A pre prerequisite for releasing a production batch is that no defective PRODUCT is found in the sample.

If a defect is detected in a PRODUCT during the production process, the supplier must interrupt the process immediately, rectify the defect and reject the affected PRODUCTS.

In this case, all PRODUCTS manufactured since last sample inspection with positive results (last good part) must be inspected 100 percent. Defective PRODUCTS must be sorted out immediately and stored in a safe place ('quarantine storage') until the cause of the defect has been finally clarified. Any corrective action initiated must be clearly documented in the records in a traceable manner. If there is a risk that BSH has been supplied with defective PRODUCTS, BSH must be informed accordingly and immediately informed in detail of the actions taken.

If a subsequent inspection reveals that the defective PRODUCTS cannot be reworked, they must be reliably and demonstrably scrapped.

All PRODUCTS that are subject of a complaint or are rejected by the supplier as defective but are suitable for reworking and conditional use can be reworked after prior enquiry from the supplier and written confirmation by BSH.

The rectification and repair of returned or defective PRODUCTS and delivery without reaching prior agreement with BSH constitutes a major breach and will result in immediate escalation.

6.6 Change Request and Deviations

If, by way of exception, the supplier is unable to deliver PRODUCTS conforming to the specification, the delivery of PRODUCTS will require a Special Release by BSH. Minor deviations during the series production for a short time and quantity can be handled with a Special release without changing the main release status of the component.

For all deviations or planned changes on PRODUCT or process requested by supplier, the required information must be specified in the Change Request supplier document (CRS) and sent to BSH for approval or decision about further procedure.

Template CRS can be found on the ONE Communication Platform (OCP) → section Quality Management → Release Management:

<https://ocp.bsh-group.com/en/documents>

The PRODUCTS concerned (and their delivery containers) must be clearly marked in consultation with BSH.

6.7 Traceability and Labelling

The supplier undertakes to ensure the traceability of the PRODUCTS delivered by it. This also includes all sub-suppliers and complete documentation of changes to the product and production process. If a defect is detected, it must be ensured that the defective PRODUCTS / product parts / lots, etc. can be localized.

To avoid the mixing of batches and ensure traceability, unfinished parts and purchased parts from sub suppliers or self-manufactured should be processed and supplied according to the "First In, First Out" (FIFO) principle.

To enable unambiguous traceability, relevant data on production, testing and condition shall be furnished by the supplier and his sub-suppliers.

The supplier undertakes to label PRODUCTS, parts and the packaging in accordance with the agreements made with BSH and must ensure that the labelling of the packaged PRODUCTS is also legible after transport and storage.

6.8 Continuous Improvement Process (CIP)

One of the most important tasks before the start and during ongoing series production is the development and implementation of measures that lead to the continuous improvement of processes.

Key steps:

- **Identify** improvement opportunities and recognize areas where enhancements can be made.
- **Analyze** and understand current processes identifying weaknesses or inefficiencies.
- Implement changes and make the necessary modifications based on analysis.
- **Monitor** results and track the outcomes of the changes to assess their effectiveness.
- **Standardize** successful practices and attempt to integrate successful changes into standard operating procedures.
- **Review** and reflect continuously the processes, gather feedback, and reflect on the improvement cycle to identify new opportunities.

The following points must be considered:

- Improvement in process capability by reducing variance
- Increase in productivity
- Centering of processes
- Avoidance of reworking and scrap
- Analysis of complaints

7 Complaints

7.1 Complaints Procedure

Defects are exceptions and will be reported to the Supplier by BSH in the form of complaints. Depending on the type and frequency of the defect, BSH reserves the right to return the rejected parts to the supplier either immediately or as part of collective return.

The top priority is to ensure trouble-free production at BSH with flawless PRODUCTS.

It should be noted that deviations have not only technical but also to organizational causes. The supplier shall ensure comprehensive and regular communication when handling complaints. BSH expects deviations of any type to be processed according to 8D method.

The 8D report is created by BSH in case of serious defects in the PRODUCTS to determine the root causes and to initiate appropriate corrective actions. Supplier should analyze the root causes and define the related measures that will prevent the recurrence of the problem. BSH provide the 8D report as an Adobe Interactive file by mail. The Supplier need to complete this form and return it to BSH.

Please follow the detailed explanations on "Instruction 8D-Report" document.

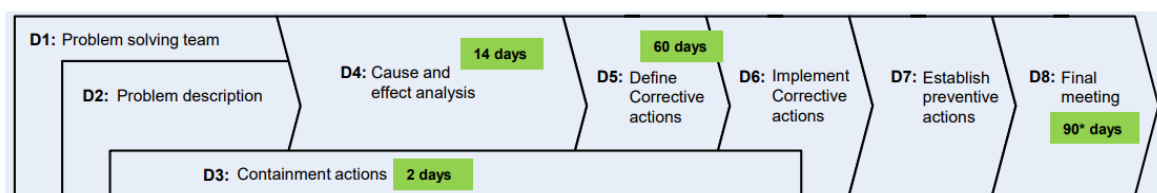
Supporting document "Instruction 8D-Report" can be found on the ONE Communication Platform (OCP) → section Supplier Enabling Supporting Documents → Problem Solving → New Claim System:

<https://ocp.bsh-group.com/en/documents>

7.2 Problem Solving with 8D Method

The proper application of the "problem-solving process" throughout the company to eliminate the cause of defect forms the basis of a professional business partner.

The 8D method is a procedure for the problem solving in 8 steps. All 8 steps are to be processed within the problem solving.



1 BSH REACTION RULE

Detailed explanation about the 8D procedure could be find in the section "Overview Problem Solving with 8D for Suppliers". Further useful Web-based Trainings, Videos, Documents, Booklets, and Instructions are also available there.

Supporting documents can be found on the ONE Communication Platform (OCP) → section Supplier Enabling Supporting Documents → Problem Solving:

<https://ocp.bsh-group.com/en/documents>