

SUPPLIER QUALITY MANUAL

General

Introduction

Suppliers to all Nissens Cooling Solutions plants (here after referred as NCS) play a key role in assuring the high quality of products and services provided to NCS Customers.

Purpose

The purpose of this Supplier Quality Manual is to define and clarify the minimum quality requirements that shall be in place at the NCS´ Suppliers and their sub-Suppliers in order to ensure excellent quality of delivered products and services and to meet or even exceed the Customer expectations and is applicable in addition to the terms and conditions of purchasing.

Scope

This Supplier Quality Manual applies to all purchased products and services by any of the NCS plant globally.

General Supplier Quality Expectations

The Supplier shall assure the products and services meet NCS requirements.

The Supplier shall establish and maintain the process to ensure that the products and services meet NCS requirements and that they are all transferred into internal specifications (functional, dimensional, material, visual, acoustic and any other requirements).

The Supplier shall keep records of reliability and test results for minimum 10 years.

The primary aim of all NCS Suppliers must be to achieve "zero defects quality".

The above applies to the Supplier and its sub-Suppliers.

Supplier Qualification Requirements

Quality Management System

NCS expects all the Suppliers to comply with and to be certified for the latest edition of ISO 9001 or IATF 16949 for their production processes. In case of design responsibility, design process shall be included into the ISO 9001 or IATF 16949 certification scope. The Supplier shall assure that their sub-Suppliers comply with ISO 9001.

Suppliers providing service shall be ISO 9001 certified for purchase and sale and shall assure their sub-Suppliers (producers of sold components) are ISO 9001 certified.

In case the Supplier is not ISO 9001 (or IATF 16949) certified, as a minimum the Supplier's quality management system shall ensure ability to meet requirements specified in this manual. This will be verified by process and system audit and based on its result formal approval can be given by the NCS representative, by formal letter.

A copy of the Supplier's certificate shall be provided to NCS. Subsequent updates or changes of certificates shall also be provided to NCS without delays.

Suppliers delivering products and services for Wind Industry shall follow APQP4Wind approach.

In case of requirements related to special processes additional certifications may be requested.

Health, Safety and Environmental Management System

NCS expects all the Suppliers to implement the system for managing health and safety and promoting safe work environment – ISO 45001 certification is preferred.

NCS expects all the Suppliers to follow Environmentally friendly approach, Environmental Management System shall be implemented - ISO 14001 certification is preferred.

A copy of the Supplier's certificate(s) shall be provided to NCS. Subsequent updates or changes of certificate(s) shall also be provided to NCS without delays.

Proactive approach towards Neutral carbon footprint is expected.

Code of Conduct

It is expected that Code of Conduct is applied at all NCS suppliers.

NCS requires all Suppliers to comply with the Supplier Code of Conduct and to deliver a signed copy as evidence of the Supplier's commitment.

Qualification Audit

During the Supplier Selection & Qualification process the Supplier is requested to perform a self-assessment and return a filled copy of the New Supplier Assessment.

Based on the type of the purchased commodity or service the on-site New Supplier Assessment is performed to evaluate Supplier's potential to meet NCS and Customer requirements. Follow-up in a form of action plan will be mandatory in case improvements are necessary.

Once it is relevant, the Process audit for serial/running production may be scheduled.

Product and Service Qualification Requirements

Product and Service Approval

In order to secure uniform quality of products and services meeting expectations, the Supplier is asked to provide objective facts and evidence to demonstrate it.

APQP4Wind methodology is used to verify the quality assurance.

Supplier shall perform Feasibility Study with commitment to meet NCS requirements.

Prototyping

Supplier may be requested to deliver prototypes before PPAP process is initiated. After testing and validation process of delivered parts is finished, NCS decides whether the product design needs to be modified or no modification is needed and thus the process of PPAP may be initiated.

0-series/PPAP

With any new component the Supplier is requested to deliver PPAP documentation in the level that is specified and communicated within RFQ, or mutually agreed during the negotiation period.

It is requested that the complete PPAP documentation is provided to NCS NO LATER than on the samples' delivery date.

Evaluation of samples as well as evaluation of the provided PPAP documentation is done by NCS. The approval of PPAP is granted if the physical samples as well as the provided documentation is found satisfactory. If deviation on the samples is found, the samples are treated as non-conforming material. If PPAP documentation is not satisfactory, NCS will request submitting the missing or corrected documents.

The product is fully released once the Supplier receives the signed copy of PSW which serves as a proof of the quality acceptance of delivered components and respective documentation.

In case of accepted deviations, PSW deviation will be signed and provided to the Supplier.

FAI (First Article Inspection) audit

NCS reserves the right to request the FAI audit at the Supplier's production facility. If FAI audit is needed, the Supplier shall be informed and the date to be mutually agreed between NCS and the Supplier considering Requested Delivery Date of the inspected parts.

Inspection activities by NCS and/or the 3rd party may be requested to secure expected quality of purchased parts.

Special characteristics

Special characteristics refer to the key measurable features of a product or process that are critical to safety and/or quality. They are clearly marked on the drawing and/or specification. The requirements for PPAP are set as per APQP4Wind, if not stated otherwise.

Serial production

Quality Assurance

The Supplier is obliged to manufacture the parts and perform quality control steps to fulfil NCS's quality requirements. Quality control steps shall be following the Process control plan. Based on NCS requirements, Control plan must be conducted for all produced parts. All process steps and control steps shall be specified and recorded.

The test/inspection and production records shall be shared upon request, unless agreed otherwise.

All materials, products/services or tools manufactured by the Supplier, shall comply with NCS specifications.

All inspection, measuring, and testing conducted by the Supplier shall be performed with calibrated measuring devices and equipment. Acceptance criteria for purchase products or service parameters shall meet all relevant NCS requirements. Where processes cannot be fully verified by defined inspection and test, the Supplier shall ensure that only qualified personnel perform inspection activities.

Traceability

Supplier shall control unique identification of the outputs to assure traceability to raw material.

Specific traceability requirements shall be followed as defined in the technical drawing and/or Purchase Specification.

As-built documentation

If requested by the drawing or specification, Supplier shall provide "As-built documentation" with each Purchase order/Delivered batch latest on the purchased parts delivery date, without any delays.

Requested documentation (such as Material certificates, NDT reports, Surface Treatment reports, Measurement reports etc.) shall be sent to NCS electronically, unless agreed otherwise.

Material handling and packaging

Supplier is responsible to prevent any damage of the parts until received by NCS (if relevant based on the agreed delivery terms). As a minimum Supplier shall apply packaging procedures following NCS Packaging instruction for Suppliers and/or NCS Specific Packaging instruction. Each pallet/box/package shall be clearly identified with item nr, batch nr, supplier name as minimum.

Prototype and/or PPAP delivery shall be clearly identified with label "PPAP or Prototype".

Any deviations in packaging shall be reported prior to the shipment to mutually agree on the suggested way of alternative packaging.

On time delivery

The Supplier shall acknowledge the purchase orders and deliver according to the agreed delivery date in the right quality.

Change management

Any product and respective documentation shall be reviewed in case a change is requested by the Supplier or by NCS.

All changes are affected in writing, no verbal agreements are accepted.

Change requests by NCS

In case of a product change initiated by NCS the Supplier shall review the feasibility and consequences of the design change and communicate these without delay. After the common agreement NCS specifies the requirements on the delivery of new products and respective documentation. The start of new production and first delivery shall be mutually agreed prior to the change is initiated.

New full/partial PPAP may be requested.

The Supplier confirms the receipt of the change notification to NCS within 1 week, unless agreed otherwise.

The Supplier must ensure, using a suitable system, that all the employees concerned are familiar with and apply the current change status. The Supplier must keep records of the distribution of documents and the application of changes.

Change requests by the Supplier

The Supplier shall notify NCS in case of a planned internal change, such as product change (in case the Supplier is the design owner), manufacturing process change, change of the production line, relocation of the production facility, change in quality testing, change of the sub-Suppliers for components/materials/services or other major changes which may have impact on final product. NCS may place a request on verification of parts produced after the change is implemented, including requirements on the documentation. Upon agreement NCS may visit the Supplier to validate the production of the first products after the change is implemented.

Notification informing NCS on the change request is expected to be placed minimum 3 months before the planned change.

Should the Supplier identify a need to the product design change, the request shall be communicated with NCS. The Supplier may only start to implement the change if they have received the written approval from NCS.

In general, NCS expressively favours changes to the manufacturing process leading to improved quality or streamlining. All changes must be agreed and approved by NCS before starting any change.

The Supplier may be requested to bear the validation and administrative costs incurred by NCS related to Changes requested by the Supplier.

Supplier Evaluation - KPIs

Supplier performance is continuously monitored.

The Supplier's quality performance is measured by PPM (parts per million), the delivery performance is measured by OTIF (on time in full), targets are communicated by NCS.

When the Supplier's performance does not meet NCS target requirements, Supplier shall actively take necessary actions to improve the performance to meet the requirements. Depending on the area Quality Improvement Plan, Delivery Improvement Plan or other may be requested.

If defined targets are not reached within agreed period and performance trend isn't positive, NCS will initiate escalation process.

Continuous Improvement

It is necessary that the Supplier continuously improves the processes and quality of products in order to ultimately achieve "Zero Defects" goal.

Quality Management Audit

The Supplier quality system may be evaluated by Process Audit as per the yearly NCS Audit plan. Audit may be performed by NCS representative and/or by the 3rd party.

NCS reserves the right to perform system, process, product audits and/or visits at the Supplier's premises with prior notice in case of poor quality performance, complaints, insufficient or ineffective complaint processing or to inspect the products. Follow-up audits and/or visits may be requested. If needed, this may be also applicable for sub-Suppliers.

Welding audit

Welding audit according to ISO EN 3834 and/or according to EN 15085 may be applied to validate and monitor the Supplier's welding processes.

Follow-up in a form of action plan will be mandatory in case improvements are necessary.

Non-conforming product and complaint handling management

Any purchased products and services non-conforming to NCS specification detected in the process and delivered to NCS without prior approval will be identified as non-conforming. Supplier will be notified about non-conformity by e-mail.

Supplier is requested to perform investigation of the root cause for occurrence and root cause for non-detection by using quality tools such as Ishikawa diagram, 5Why analysis etc. and setting up corrective/preventive actions to eliminate reoccurrence of non-quality. Supplier shall fill the 8D report and return it to NCS within below described timeline, counted from the day of notification:

- Within 24 hours (1 working day) – claim register
- Within 48 hours (2 working days) – immediate containment actions (D3) such as blocking and checking units upon further shipment making sure the future deliveries are dispatched in a timely manner, checking the stock, etc.
- Within max 14 working days depending on the defect type – collection of non-conforming material/information on scrapping the items
- Within 21 working days – provide full 8D report.

NCS may request Supplier to provide the evidence of implemented corrective/preventive actions and follow-up online or onsite at Supplier.

Complaint is considered as accepted if no reply within 10 working days.

Sorting/Segregation and Evaluation of non-conforming products and services

Supplier shall take immediate containment actions such as sorting at NCS (by the Supplier or by 3rd party), sorting at NCS Customer, sorting at Supplier facility in order to secure NCS production flow. If mutually agreed, NCS may perform sorting activities at the Supplier's cost.

NCS team will evaluate any non-conforming purchased part or service, considering any risks with regards to internal or Customer's need and requirements.

The outcome of internal evaluation will be one of the following:

- Use „As Is“, if possible

- Supplier shall initiate Supplier Concession and Deviation request
- Rework needed, if possible
 - To be agreed with NCS
- Not possible to use
 - the Supplier will ensure new conforming delivery not to stop NCS production,
 - affected delivery will be returned to the Supplier at their expense unless otherwise agreed.

If it is agreed to replace claimed purchased parts, new/repared parts must be clearly identified with the NCS complaint number.

Quality wall

If the Supplier is continuously not able to ensure the expected quality of delivered products, especially when there are repeated non-conformities, NCS reserves the right to implement Quality wall (100% inspection) at the Supplier's expense.

This inspection can be performed by NCS and/or by external company until stable quality of delivered products is ensured.

Cost of claim

Supplier shall cover the cost of claims in accordance with the terms of the Purchase Agreement. If no Purchase Agreement has been signed supplier shall cover the cost of claims in accordance with the terms of NCS's General Purchasing Terms which can be found on www.nissenscoolingsolutions.com.

Cost of non-quality having negative impact on safety, environment, etc. caused by the supplied product or service reported after warranty period will be a subject of a conversation between NCS and the Supplier.

Deviations to specification

In case of any deviation which could have any impact on the safety, identification, quality, effectiveness, cleanliness, etc. the Supplier shall notify NCS immediately.

The only official way to communicate such deviation is by submission of the Supplier Concession and Deviation request form C2020-00253 to NCS.

If the deviation is approved in writing by NCS, a copy of the document must be attached to all containers/affected items in the delivery. Furthermore, the signed document shall be sent to

the dedicated e-mail address prior to the shipment, including information on the affected purchase order.

If new deviations occur, which are not covered by an existing deviation, a further deviation submission/approval must be obtained.

Finished Product Recall

In the case of product recalls, caused by the purchased products, the Supplier is required to participate in fault analysis, to cover the costs and to supply personnel for containment actions.

Failure to meet the requirements of this Supplier Quality Manual may have an impact on business cooperation.