Supplier Quality Assurance Handbook

Contents

1 Purpose

The purpose of this document is to define the *Quality Requirements for Suppliers* of United Machining. These requirements are applicable in their entirety to Products and Services allocated to a United Machining Suppliers as well as to those attributed to the "Sub-tier" Suppliers.

These Requirements comply with ISO 9000 Standard Series and are complementary to Contractual, applicable Law and Regulatory Requirements.

Acceptance of products is contingent upon compliance with these Requirements. Any deviation is permitted at the sole discretion of United Machining and must be agreed with United Machining Supplier Quality Assurance using the specific "*United Machining SQAH Compliance Matrix*" (see Attachments).

2 Applicability

This document is applicable to all activities allocated to all the Types of Suppliers described in the SQAH – Applicability Matrix in accordance with a United Machining Contract/Purchase Order and/or any other associated documentation and *shall* be flowed down to all Sub-tier Suppliers involved in fulfilment of the Contract/Purchase Order.

Table 1 describes:

- The minimum Quality Management System (QMS) Certification(s) that *shall* be held by the Supplier.
- The correlation between Supplier Approval Type granted by United Machining and activities performed by the different type of Suppliers.
- The applicability of all the Requirements based on the previous point.

The SQAH Requirements *shall* apply in addition to any Contract/Purchase Order Requirements; in case of conflict, the latter *shall* prevail.

2.1 Supplier Types

Designer: United Machining Supplier that:

- Design and manufacture Products for which they provide design, development, and validation against United Machining Functional Requirement Specifications and/or Drawings.
- Design and manufacture Products for which they hold the proprietary rights (e.g., Consumables, Catalogue parts).
- Manufacture raw materials (metallic and non-metallic).

Include "Consumable Suppliers".

Manufacturer: United Machining Supplier that manufacture, assemble, and test Products to drawings, 3D models, standards and/or process specifications for which they are not design responsible. The design requirements are provided by United Machining when United Machining is directly responsible for the design, or when United Machining have been granted manufacturing rights by another Design Responsible Organization.

Service Provider: United Machining Supplier that provide Services that contribute to aspects of Production which can include Testing, Measurement services (no calibration), Engineering Consultancy/Services and Manufacturing engineering processes (e.g., machine tool programming).

Distributor: United Machining Supplier that store and re-sell a Manufacturers' Products and manage their supply chain for the Quality aspect.

Agent: United Machining Supplier that represent a Designer and/or Distributor and arrange for their Products to be distributed.

Laboratory: United Machining Supplier used as an external calibration laboratory.

2.2 SQAH – Applicability Matrix

		Supplier Activities						
		Design & Development and Manufacturing	*Manufacturer of Raw Materials/Standard parts/Catalogue Parts*	*Manufacturing of United Machining Designed Parts*	*Manufacturers' articles stored and re-sold*	*Testing, Measurement services (no calibration), …*	*Calibration Services*	*Commercial office (only commercial relationship with United Machining)*
Minimum QMS Certification Required (ISO) per Supplier Type/Activity		ISO 9001 with "Design and Development"	ISO 9001				ISO 17025	N/A
Supplier Types	*Designer*	✓	✓					
	Manufacturer			✓				
	Distributor				✓			
	Service Provider					✓		
	Laboratory						✓	
	Agent							✓
SQAH Ch.		***Applicability***						
5	Purchasing Process, flow-down to Sub-tiers and Control	✓		✓				✓
7	Design and Development: Advanced Product Quality Planning (APQP)	✓		✓				
7.2	Stage 1 – Planning	✓		✓				
7.3	Stage 2 – Product Design & Development	✓		✓				
7.4	Stage 3 - Manufacturing Process Design & Development	✓		✓				
7.5	Stage 4 - Probation Period	✓		✓				
7.6	Stage 5 – Series Manufacturing	✓		✓				
7.7.1	Management of Design Changes	✓						
7.7.2	Management of Manufacturing Process Changes	✓		✓				
8.1	Control of Monitoring and Measurement equipment	✓		✓			✓	
8.2	Special Processes	✓		✓				
8.3	Identification and Traceability	✓	✓	✓	✓			
8.3.1	Serial Numbers	✓		✓				
8.3.2	Product Marking	✓		✓				
8.4	Packaging and Preservation of Product	✓	✓	✓	✓		✓	
8.4.1	Shelf Life and Limited Life Products	✓	✓	✓	✓			
8.4.2	Safety Hazard and Prohibited material, REACH, RoHS, Conflict Minerals and Environmental compliance	✓	✓	✓	✓		✓	
9	Control of nonconforming outputs	✓	✓	✓	✓	✓	✓	
9.1	Concession	✓		✓				
9.2	Deviation Permit	✓		✓				
9.3	Notification of Escape/Quality Alerts	✓	✓	✓	✓		✓	
11	Supplier Audit Process	✓	✓	✓	✓	✓	✓	
12	Control of Documented Information: Records Retention	✓		✓				

Note: Ref. column "SQAH Ch.": when chapters/paragraphs are not listed, it means that the entire chapter/paragraph is applicable for all Supplier Types.

3 Resources

3.1 General

The Supplier *shall* determine and provide resources needed for the establishment, implementation, maintenance, and continual improvement of the Quality Management System. The Supplier shall consider:

- The capabilities of, and constraints on, existing internal resources.
- What needs to be obtained from external providers.

3.2 People

The Supplier *shall* determine and provide the persons necessary for the effective implementation of its Quality Management System and for the operation and control of its processes.

3.3 Infrastructure

The Supplier *shall* determine, provide, and maintain the infrastructure necessary for the operation of its processes and to achieve conformity of products and services.

Infrastructure can include:

- Buildings and associated utilities.
- Equipment, including hardware and software.
- Transportation resources.
- Information and communication technology.

3.4 Environment

The Supplier *shall* determine, provide, and maintain the environment necessary for the operation of its processes and to achieve conformity of products and services.

4 Supplier Selection

The Supplier Selection Process allows United Machining to evaluate the ability/capability of the Supplier to provide Products and Services in accordance with the applicable Requirements.

The Process is initiated by United Machining Strategic Procurement when a new Supplier is required because of the Company Strategy. The following topics may be object of the "Supplier Pre-assessment": Business, Financial Health, Quality Management System*, Sustainable Development, Supply Chain, Manufacturing General, Manufacturing Specific Processes (critical), Costs.

During this phase of the Process the Supplier *shall* send the "*United Machining SQAH Compliance Matrix*" (see Attachments), filled and signed, to United Machining Strategic Procurement.

If the result of the “Supplier Pre-selection” is positive, the Supplier Evaluation phase starts. United Machining Supplier Quality Assurance performs:

- *"Supplier Risk Category Assessment"* based on Part Risk Level (if applicable), Type of Supplier, QMS Certification(s).
- Evaluation of the "*United Machining SQAH Compliance Matrix"* filled by the Supplier. Any deviation/non-compliance is discussed directly with the Supplier.

A United Machining internal "Steering Committee" is the final step in the Supplier Selection Process.

Once a Supplier is selected by United Machining, approval is considered valid unless a Supplier:

- Fails to act in accordance with their Scope of Approval.
- Fails to achieve a satisfactory performance level.
- Does not receive a Purchase Order for 4 years.

** All the Suppliers shall have a Quality Management System compliant with Table 1 as applicable for their Supplier Type. United Machining Supplier Quality Assurance shall evaluate any deviations.*

4.1 Changes affecting United Machining Approval

The Supplier shall send timely written notification to United Machining Supplier Quality Assurance in case of changes that can affect the approvals granted by United Machining, such as (but not limited to):

- Organization:
  - Relocation to new premises.
  - Change in the industrial organisation (partnership, Suppliers, design work sharing).
- Resources:
  - Substantial reduction in number and/or experience of staff.

The submitted changes will be assessed by United Machining to evaluate their impact on the approval status of the Supplier.

5 Purchasing Process, flow-down to Sub-tiers and Control

The Supplier is responsible for all Sub-Tier Suppliers activities related to the Products/Services they supply for United Machining.

United Machining Requirements *shall* be flown down to, understood, and implemented by Sub-tier Suppliers prior to commencing any activity. The Supplier *shall* monitor the correct implementation of such requirements by its Suppliers.

United Machining reserves the right to witness audits performed by Suppliers at Sub-tier premises. Moreover, United Machining reserves the rights to prescribe their Suppliers.

6 Review of the Requirements for Products and Services: Contract Review

The Supplier shall ensure that it has the ability to meet the requirements for products and services to be offered to United Machining. The Supplier shall conduct a review before committing to supply products and services to United Machining, including all the applicable requirements (stated and not stated). The Supplier shall ensure that contract or order requirements differing from those previously defined are resolved.

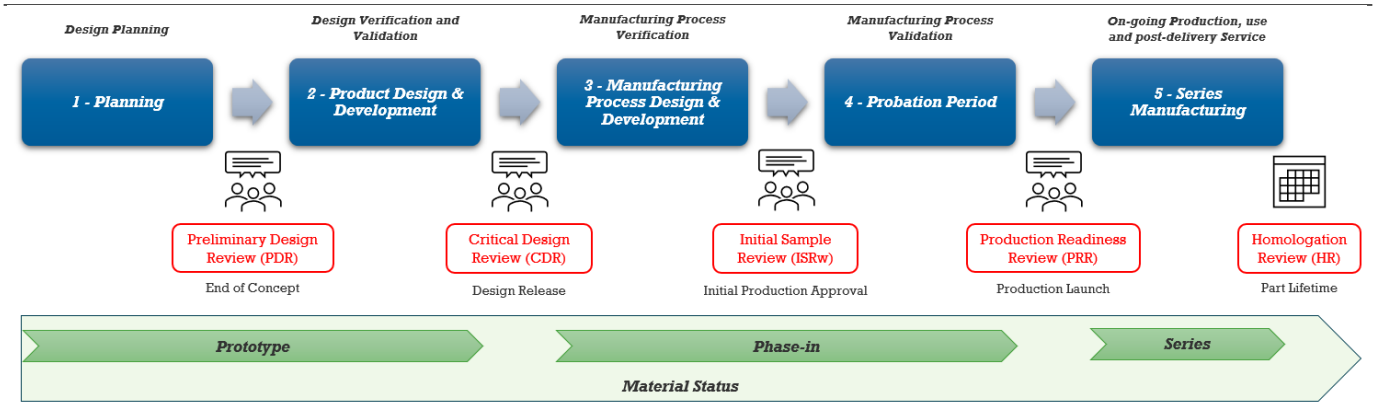
7 Design and Development: Advanced Product Quality Planning (APQP)

APQP Process defines the mandatory requirements for Suppliers of activities concerning design, verification, and validation of United Machining Products.

These activities have the purpose to demonstrate:

- The compliance of each Product to the United Machining applicable requirements,
- The compliance of each Product to the Functional design requirements (Functional Validation),
- The ability of the Manufacturing Process to produce items in compliance with the Design Data Set (Manufacturing Process Verification and Validation).

APQP Process consists of five "Stages" starting with conceptual product needs and extending throughout the product life cycle:



7.1 Applicability

APQP Process is generally applicable to all Suppliers of *Design & Development* and *Manufacturing* activities of United Machining Product including the Re-validations activities and modifications on Products already homologated.

APQP Process is not applicable to Suppliers of Raw Materials / Standard Parts / Catalogue Parts. However, United Machining reserves the right to execute verification and/or validation activities on these parts to ensure compliance with United Machining Requirements.

7.1.1 Reviews

The outputs from the Process stages *shall* be verified with formal *Reviews*, whose positive results confirm the completion of all anticipated activities, the due conformity to the applicable standards of the produced documentation and authorize the passage from a Stage to the following one.

7.1.2 Deliverables

Within the APQP Process specific *Deliverables* are established, monitored, and tracked to closure, while highlighting and mitigating risks as they are identified. The deliverables that *shall* be verified during all the reviews are listed in the "*United Machining APQP Plan*". The list of the applicable deliverables shall be defined/agreed by United Machining and the Supplier for every product during the *Stage 1 "Planning"* (this Stage is always applicable and is mandatory).

All the deliverables shall be written/filled in English Language and sent in PDF format.

United Machining Supplier Quality Assurance reserves the right to analyse/review all the documents (e.g., manufacturing instructions, work cycle, operating instructions) raised by Supplier for *United Machining Designed Part* Design & Development and/or Manufacturing activities.

7.1.3 Part Risk Level

A "Risk-Based" approach drives the definition of Quality Control activities to be performed on the Product: the more critical the product, the more controls are applied. Therefore, the *Product Risk Level* determination (if applicable, depending on the United Machining Technical Unit/Plant) becomes the first input for the definition of Control/Inspection Plans contents.

7.1.4 APQP Scenario

Depending on Part Risk Level and the process capability level, an “APQP Scenario” is defined. Basically, the combination of these two factors will define the depth of activities and deliverables to be provided, balancing assurance and United Machining incoming activity efforts for a specific part:

- Scenario A: Is the more exhaustive and in-depth scenario combining critical parts and complex process.
- Scenario B: Is the light version considering a more mature and capable process.

- Scenario C: Scenario focussed on smaller series and/or mature design.
- Scenario D: Scenario based on visual/ sampling activities on United Machining side.

Depending on the applicable APQP Scenario, the activities to be executed and the deliverables to be provided are different. The "*United Machining APQP Plan*" shall be used to define them during the Stage 1 “Planning”.

7.2 Stage 1 – Planning

The goal of this Stage is to capture customer inputs, benchmark data, lessons learned, regulatory requirements, technical specifications, company know-how and strategy into a product concept and realization plan. This includes identification of the high-level technical, quality and cost targets.

Preliminary Design Review (PDR): the goal of this Review is to ensure the finalization at the Design and Development output meet the inputs Requirements.

Form to be used: United Machining APQP Plan.

7.3 Stage 2 – Product Design & Development

The goal of this Stage is to translate the technical, quality and cost requirements into a controlled, verified, and validated product design. Design validation is achieved using Prototype/Test Sample in test environments that can represent the United Machining’s installation.

Critical Design Review (CDR): the goal of this Review is to ensure that the resulting Product meet the Requirements for the specified application or intended use.

Forms to be used: United Machining APQP Inspections, United Machining Manufacturing Process Control Plan.

7.4 Stage 3 - Manufacturing Process Design & Development

The goal of this Stage is to design and develop the production processes needed to produce product that consistently fulfil technical, quality and cost requirements while operating at the United Machining demand rate.

Initial Sample Review (ISRw): the goal of this Review is to ensure the Manufacturing Process is able to produce Products that meet applicable Requirements.

Forms to be used: United Machining APQP Inspections, United Machining Manufacturing Process Control Plan.

7.5 Stage 4 - Probation Period

The goal of this Stage is to validate that product fulfils the design requirements and the production processes have demonstrated the capability to consistently produce conforming product at the United Machining demand rate.

Production Readiness Review (PRR): the goal of this Review is to confirm that the Manufacturing Process consistently produces a Product fulfilling the applicable Requirements, including key Product or Process characteristics, which are stable and capable at the desired level.

Form to be used: United Machining APQP Inspections.

7.6 Stage 5 – Series Manufacturing

The goal of this Stage is to ensure United Machining requirements are continually fulfilled using manufacturing process control, lessons learned and continuous improvement.

Homologation Review (HR): the goal of this Review is to ensure the compliance of the product with the applicable Requirements during series production, avoiding nonconformities due to not evaluated/authorized changes on Design/Manufacturing characteristics or to a lapse in production.

Form to be used: United Machining APQP Inspections.

7.7 Design and Development Changes

The Design of any product procured from a Supplier who is also the designer of the product, once validated (APQP Stage 2 and Critical Design Review successfully completed), becomes part of the Design Data of the United Machining product.

Alteration to any of the following data, which constitutes the Design Data, is considered a change to Design:

- Drawings and their lists necessary to identify the configuration.
- Specifications and their lists necessary to identify the configuration.
- Information on materials, processes, methods of manufacture and assembly

7.7.1 Management of Design Changes

All Design Changes *shall* be communicated to United Machining for Evaluation and Approval.

For each Design Change, the Supplier shall send to United Machining a "*United Machining Change Request*" completed with all the details needed to evaluate the Change.

Design Changes cannot be implemented until its approval is communicated by United Machining with signature on the above-mentioned Form.

The changes below are pre-classified as very minor Changes to the Design Data. Only these specific changes do not require any United Machining approval before the implementation:

- Correction of Drawing clerical errors (e.g., Graphical errors; formal errors on quotations or references).
- Correction of Drawing Part list clerical errors (e.g., Formal errors; incorrect or superseded recall of materials or standards).

Form to be used: United Machining Change Request.

7.7.2 Management of Manufacturing Process Changes

All Manufacturing Process Changes *shall* be communicated to United Machining for Evaluation and Approval.

For each Manufacturing Process Change, the Supplier shall send to United Machining a "*United Machining Change Request*" completed with all the details needed to evaluate the Change.

Manufacturing Process Changes cannot be implemented until its approval is communicated by United Machining with signature on the above-mentioned Form.

For changes affecting frozen manufacturing processes and changes on sources including the manufacturing site for the end item, the Initial Sample Inspection *shall* be partially or totally repeated, and the manufacturing process shall be re-homologated. In this case, the Supplier shall resubmit to United Machining Supplier Quality Assurance the *Initial Sample Inspection* to highlight the introduced changes with respect to previous homologation.

Form to be used: United Machining Change Request, United Machining APQP Inspections.

8 Production and Service Provision

8.1 Control of Monitoring and Measurement equipment

The Supplier *shall* determine the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements.

Traceability of calibration to Official National or International recognized standards instruments *shall* always be ensured.

8.2 Special Processes

The Supplier *shall* provide the validation and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement.

Examples of Special Processes: Heat Treating, Chemical and galvanic treatments for protection and for surface preparation, Welding, Crimping of electrical contacts.

8.3 Identification and Traceability

All products shall be identified and traceable in accordance with the Design Requirements or as agreed with United Machining. The traceability system defined by the Supplier *shall* reduce the probability of the need to conduct a full product recall in the event of noncompliance.

This *shall* take into consideration the following:

- Traceability of the sub assembly parts/components (including raw material).
- Manufacturing methods, techniques, and processes.
- Criticality, safety, and reliability data.
- Complexity of design and processes employed.

8.3.1 Serial Numbers

When serialization is required, Serial Numbers shall be allocated and remain unchanged from the earliest, defined operation, throughout the life of the product.

Supplier *shall* ensure the assigned s/n is unique for each product part number and no duplication of s/n can occur.

8.3.2 Product Marking

Supplier *shall* ensure marking is always visible on the product, also after painting, as indicated in United Machining Drawing/Purchase Order.

8.4 Packaging and Preservation of Product

All products *shall* be preserved, packed, identified and shipped according to the Purchase Order requirements or, if not specified, to the best commercial rules.

The type of packaging *shall* be defined by the Supplier taking into due consideration: environmental and shipping stresses that can affect parts during shipping, transportation, and warehouse handling. Internal packaging and conditioning should be adequate to ensure the proper storage life for the parts. In the case of a sealed package, the external marking shall indicate all the data related to the part (identification, shelf life, curing date etc).

Do not use materials that can cause deterioration/corrosion during storage and/or delivery to United Machining and/or their customers.

In case of fragile parts (extremely shock sensible), packaging shall be adequate to prevent damages.

If the packaging contains shelf-life parts, the package shall report packaging date and shelf life.

Products that are (or contain) Electrostatic discharge Sensitive Devices (ESD) or operate at high voltage shall be clearly marked accordingly and packaged in accordance with National and International specifications.

8.4.1 Shelf Life and Limited Life Products

Product shall be supplied with the required shelf life/calendar life unless otherwise specified in the applicable material specification/engineering requirements or otherwise agreed.

Limited life materials shall be identified and controlled by Supplier so that 'out-of-life' materials are not used to manufacture United Machining Parts/Products.

8.4.2 Safety Hazard and Prohibited material, REACH, RoHS, Conflict Minerals and Environmental compliance

The Supplier *shall* provide clear identification, instruction for usage, control, training, and disposal in accordance with National and International standards if a product is a safety hazard (e.g., Beryllium copper, lithium batteries etc.). Material Safety data sheets shall be provided for chemical products.

Any product or packaging delivered to United Machining shall be compliant in terms of hazardous material or substances forbidden by supplier Country laws and European Community as per *GF MS General Purchasing Conditions* related chapters.

9 Control of nonconforming outputs

The Supplier shall ensure that outputs that do not conform to the applicable requirements are identified and controlled to prevent their unintended use or delivery.

The Supplier shall take appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This shall also apply to nonconforming products and services detected after delivery of products, during or after the provision of services.

The Supplier shall deal with nonconforming outputs in one or more of the following ways:

- Correction.
- Segregation, containment, return, or suspension of provision of products and services.
- Informing United Machining Incoming Parts Quality Control (in any case).
- If needed, obtaining authorization for acceptance under Concession.

United Machining Supplier Quality Assurance (SQA) will issue a Quality Notification to the Supplier for any Nonconformity detected but not identified by Supplier. The Supplier *shall* notify United Machining SQA the Root Causes, the Actions and that amendments to the process have been/will be put in place to prevent the occurrence. When required by United Machining SQA, the "United Machining *8D Report*" shall be completed by the Supplier, respecting the provided "time frame".

If a corrective action is required and not taken within the date requested by United Machining SQA (30 days if not differently specified), an escalation process can be initiated.

If the agreed days' timescale cannot be met, the Supplier shall inform United Machining SQA (within 10 days if not differently specified) explaining the reasons for the delay.

Nonconforming products, with their identification (e.g., labels), shall be held in a secure quarantine area until an approved, written disposition is given. A "split batch" may be used to allow acceptable articles to continue the manufacturing process.

Unless otherwise formally agreed, nonconforming products shall not be delivered until the notification of nonconformity is accepted and disposition issued by United Machining SQA. In case this last authorizes the Supplier to deliver a nonconforming product with an open nonconformity, this status shall be recorded on the accompanying documentation.

When a Quality Notification is acknowledged by the Supplier, United Machining reserves the right to charge the costs incurred for nonconformity related activities.

Form to be used: United Machining 8D Report.

9.1 Concession

A "*United Machining Permission Request*" shall be prepared and submitted to the United Machining Supplier Quality Assurance (SQA). Once the Concession is evaluated, the Supplier will receive it back by United Machining SQA.

The Supplier *shall* implement the authorized repair and shall give evidence of that work done to the United Machining SQA. A Concession may refer to more Serial Numbers for the same defect to allow a faster management of the products.

A Concession shall not contain more defects and/or descriptions. In the presence of more defects or more descriptions for the same defect, more Concessions shall be issued since different decisions to use for each defect cannot be managed within the same Concession.

In case a product is manufactured under an authorized Deviation Permit, and a request for a Concession is needed, a copy of the approved Deviation Permit shall be attached to the request for Concession.

In case the Concession number shall be marked, it shall be done before to deliver the parts. The marking method shall be the same indicated in the drawing/specification otherwise indicated on the concession itself.

Form to be used: United Machining Permission Request.

9.2 Deviation Permit

A "*United Machining Permission Request*" shall be prepared and submitted to the United Machining Supplier Quality Assurance (SQA). Once the Deviation Permit is evaluated, the Supplier will receive it back by United Machining SQA in charge of it with all the relevant dispositions.

Form to be used: United Machining Permission Request.

9.3 Notification of Escape/Quality Alerts

The Supplier shall send a Quality Alert (written on their company headed paper and on its own format) to notify United Machining any circumstances that might affect integrity of the products already delivered.

Such information *shall* be sent to the contacts below:

- United Machining Commodity Manager
- United Machining Supplier Quality Assurance Engineer
- United Machining SQA mailbox: supplier.quality.*PLANT NAME*@georgfischer.com

The Supplier shall ask and receive an acknowledgement of such communication.

10 Supplier Re-evaluation

All approved Suppliers *shall* be subject to surveillance and revalidation by United Machining Supplier Quality Assurance according to following criteria:

- Supplier Risk Category (assigned during Supplier Selection Process).
- Performances (mainly Quality and Delivery, continuously monitored and summarized in a "Vendor Rating").
- Specific program requirements and criticality of the types of product/services supplied to United Machining.

The process of Supplier Re-evaluation *shall* be carried out through the interactions of the following activities:

- Surveillance Audit at the Supplier's Facility.
- Continuous Improvement activities (promoted/supported by United Machining Supplier Development Department).

11 Supplier Audit Process

Where an audit at the Supplier Facility is determined to be necessary, this is undertaken to obtain evidence of the suitability and effectiveness of the potential Supplier's QMS and compliance with United Machining SQAH (Supplier Quality Assurance Handbook) and if the Supplier does not hold a QMS Certification, compliance to the United Machining QMS.

To make the audit as effective as possible, specific "*United Machining Supplier Audit Checklist"* can be used by the Auditor based on the Type of Supplier.

Results of the audit *shall* be formally documented by United Machining SQA Auditor with a "*United Machining Supplier Audit Report*".

11.1 Non-Conformities Management

Where a "*United Machining Non-Conformity Report"* (NCR) is raised because of an Audit finding, the following non-conformity categories are used:

Non-Conformity categories	***Finding***	***Document***
Level 1	Evident and objective non-conformity with respect to the requirements of the applicable standards and/or procedures that will have a potential impact on a safety and/or contractual requirement. Corrective and containment actions shall always be required.	NCR
Level 2	Evident and objective non-conformity with respect to the requirements of the applicable standards and/or procedures that is not classified as Level 1. Corrective and containment actions shall always be required.	NCR
Level 3	Isolated non-conformity with respect to the requirements of the applicable standards and/or procedures that is not classified in the preceding Levels. Only containment action shall be required.	NCR
Preventive Action Only	Event that indicates a possible failure of the QMS and that can be subject to future NC. Preventive action shall always be required.	NCR

Notes:

- Several Level 2 non-conformities against one requirement (e.g., similar non-conformities associated to different sites or different departments / functions / processes within a single site) can represent a total breakdown of the systems and can be considered a Level 1 non-conformity.
- Where a Level 1 Non-conformity is raised, the United Machining Statement of Approval shall not be issued until the non-conformity is closed to the satisfaction of the United Machining Auditor.

A "*United Machining Non-Conformity Report"* (NCR) is completed by the Auditor for each Non-conformity clearly stating the description of the non-conformity. The Form is forwarded to the Supplier for completion of Root Cause Analysis (5 Whys method), at minimum identifying 3 levels of "Whys" and Corrective action/Preventive action (as appropriate). The completed form shall be returned to the Auditor by the Supplier within 21 calendar days from forwarding. In case of a Level 1 Non-conformity is raised, the response period will be reduced to 5 calendar days or less (at Auditor's discretion).

NC Categories	*Owner*	*Root Cause Analysis (Max Calendar Days)*	*Containment Action Definition/Implementation (Max Calendar Days)*	*Corrective/Preventive Action definition (Max Calendar Days)*	*Corrective Action Closure (Max Calendar Days)*
1	Supplier	5	5	5	21
2	Supplier	21	21	21	80
3	Supplier	21	21	*N/A*	*N/A*
Preventive Action	Supplier	*N/A*	*N/A*	21	80

11.2 Escalation

It is a Supplier responsibility to monitor the timing for the definition and implementation of request for corrective action.

Where a Supplier does not respond to the request for corrective action in the planned times, an “escalation process” will be initiated from United Machining SQA to the Supplier Top Management and may lead to contractual consequences.

11.3 Right of Access

United Machining shall have the right of access to any Supplier involved with United Machining Products, included any Sub-tier Supplier.

The Supplier shall provide United Machining Customers (or the Customers authorized representatives) and/or Regulatory Authorities rights of access to premises where United Machining work is being performed. Such access shall be used to verify that the activities being undertaken meet the requirements of the United Machining contracts/orders. The Supplier shall provide suitable accommodation facilities and assistance.

Suppliers shall notify United Machining when a United Machining Customer (or Customer representative) requests access to the Supplier’s facilities. In all cases, access at the Customer’s shall be arranged by United Machining only. United Machining reserves the right to accompany any Customer during a Supplier visit.

12 Control of Documented Information: Records Retention

Documented information required by the Quality Management System shall be controlled to ensure:

- It is available and suitable for use, where and when it is needed.
- it is adequately protected (e.g., from loss of confidentiality, improper use, or loss of integrity).

For the control of documented information, the organization shall address the following activities, as applicable:

- Distribution, access, retrieval, and use.
- Storage and preservation, including preservation of legibility.
- Control of changes (e.g., version control).
- Retention and disposition.

Documented information retained as evidence of conformity shall be protected from unintended alterations.

Records shall be kept for the time specified hereinafter:

Type of Records	*Examples*	*Part Risk Level*	*Retention Period (years)*
Records generated during the Product Design,	• Results of the Design reviews, verification, validation and any necessary actions, minutes of meeting,	Risk Level 1 (RL1)	15

Development and Manufacturing, supporting the conformity of the Products.	reports. • Manufacturing records (e.g., identification sheet, work order and shop order travellers), engineering change records, as built data sheets, records of Initial Sample Inspection, equipment records). • Master Sample Signed Off.	Risk Level 2 (RL2)	10
		Risk Level 3 (RL3)	5

The Supplier shall grant United Machining complete access to documentation upon request.

13 United Machining Forms

United Machining Forms are available on the website, see “Supplier Quality Assurance” section: United Machining Strategic Procurement

- United Machining APQP Plan
- United Machining APQP Inspections
- United Machining Manufacturing Process Control Plan
- United Machining Change Request
- United Machining 8D Report
- United Machining Permission Request

It is responsibility of the Supplier to check regularly the United Machining website to ensure they are using the latest issue of United Machining published Forms.

14 Acronyms and Definitions

14.1 Acronyms

APQP	Advanced Product Quality Planning
BoM	Bill of Materials
CDR	Critical Design Review
CoC	Certificate of Conformity
United Machining	Georg Fischer Machining Solutions
HR	Homologation Review
IPQC	Incoming Parts Quality Control
ISI	Initial Sample Inspection
ISO	International Standardization Organization
ISP	Initial Sample Plan
ISR	Initial Sample Report
ISRw	Initial Sample Review
NCR	Non-Conformity Report
PDR	Preliminary Design Review
PO	Purchase Order
PQ	Project Quality
PRR	Production Readiness Review
QMS	Quality Management System

R&D	Research & Development
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	Restriction of Hazardous Substances
SQA	Supplier Quality Assurance
SQAE	Supplier Quality Assurance Engineer
SQAH	Suppliers Quality Assurance Handbook

14.2 Definitions

For the purposes of this document, the following definitions shall apply:

Catalogue Part / Product: commercially available items intended by design to be procured and utilized without modification (e.g., common electronic components).

Concession: permission to use or release a Product or Service that does not conform to specified requirements. A concession is generally limited to the delivery of products and services that have nonconforming characteristics within specified limits and is generally given for a limited quantity of Products and Services or period of time, and for a specific use.

Control plan: documented description linking manufacturing process steps to key inspection and control activities. The intent of a control plan is to control the design characteristics and the process variables to ensure product quality.

Deliverables: Items (outputs) completed as part of the APQP Process.

Deviation Permit: permission to depart from the originally specified requirements of a Product or Service prior to its realization. A deviation permit is generally given for a limited quantity of Products and Services or period of time, and for a specific use.

External Provider: (also called "Supplier") provider that is not part of the organization.

United Machining Designed Part: part designed, developed, and validated against United Machining Functional Requirement Specifications and/or Drawings.

Initial Sample: (also called "First Article" or "First Production run") the initial group of one or more parts that are the result of a planned process designed to be used for future production of the same parts.

Initial Sample Inspection: planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings, digital data, planning, purchase order, engineering specifications, and/or other applicable design documents.

Initial Sample Inspection Report: the forms and package of documentation for a part number, sub-assembly, assembly, or installation including Initial Sample Inspection results after the qualification of the part.

Key characteristic: an attribute or feature whose variation has a significant effect on product fit, form, function, performance, service life or producibility, that requires specific actions for the purpose of controlling variation.

Master Sample: is a final sample of the product that is inspected and signed off by the customer. The master sample part is used as a benchmark for comparison to standard production parts if any part quality questions arise.

Serial Number: unique number or alpha-numeric code that is one of a series, used to provide identification of a Product to enable traceability.

Special Process: any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement and, therefore, deficiencies become apparent only after the product is in use or the service has been delivered.

Standard Part: a part manufactured in compliance with an established government or industry-accepted specification that contains design, manufacturing, and uniform identification requirements. The specification must

include all information necessary to produce and conform the part and must be published so that any person/organization may manufacture the part.

Sub-tier Supplier: any Supplier in the First-tier Supplier's supply chain.

Test Sample: (also called "Prototype") is required to provide compliance of the prototype part with the applicable design data.

Validation: confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled.

Verification: confirmation, through the provision of objective evidence, that specified requirements have been fulfilled.

15 Final Provisions

Confidentiality: The Parties (GFSM/Supplier) *shall* not disclose to third parties nor use for any other purposes than those contemplated by this SQAH any information or documents received from United Machining/Supplier during the term of this SQAH. All information disclosed by United Machining/Supplier shall remain its exclusive property. This undertaking shall survive the termination of this SQAH for a period of at least five (5) years, to the extent the pertinent information has not entered the public domain.

Severability: should any provision of this SQAH be or become invalid or unenforceable, the validity or enforceability of all other provisions shall not be affected. In this case, the invalid provision is replaced by a provision consistent with the original commercial intention of the Parties.

Amendments: no change or addition to any provision hereof shall be binding unless in writing and signed by the Parties. The requirement of the written form may also only be modified or waived in writing.