



Supplier Quality Requirements

INTRODUCTION

Welcome to Century

Century, LLC is a privately held, vertically integrated precision manufacturing company headquartered in Traverse City, Michigan and serving customers worldwide. The company is comprised of two separate business units on our 13-acre campus: Century Specialties which provides Precision Machining and Century Sun servicing the Heat-Treating industry.

Employing an APQP quality framework, coupled with state-of-the-art CNC machines and digitally monitored heat treating equipment, the end products from Century are produced to the highest quality standards. This unique vertical integration of our precision machining operation and world class heat treat facility allows for the exchange of operational resources, single source accountability, and value to our customers.

Century, LLC is AS9100/ ISO 9001 registered, ITAR registered and compliant, in addition to Century Sun Metal Treating NADCAP accreditation.

Purpose

In today's manufacturing environment, product found to be non-conforming at receiving, or during production, causes serious disruptions of the production and shipping schedules, resulting in high production costs. Century requires suppliers to control the quality of services and material shipped to Century, LLC.

This manual describes Century, LLC's expectations for its suppliers to ensure that purchased material and services meet Century requirements. If there are exceptions of applicability, the supplier shall provide in writing the request to depart from or exclude the section that they are not maintaining.

Scope

This document is complementary to the Century, LLC Non-Disclosure Agreement, Purchase Order Terms and Conditions or other Non-Disclosure Agreements in place between Century LLC, and the Supplier.

This Agreement outlines the mutual expectations between the Supplier and Century regarding product quality, lines of communication, expectations to resolve quality problems, change control and development activities. It also applies to Century's outsourced partners or subsidiaries. Acceptance of a Purchase Order binds the Supplier to the requirements within this document, the agreed upon Terms and Conditions and the listed requirements on the Purchase Order.

Century, LLC's Quality Policy

"Excellence through continuous improvement and customer satisfaction"

Our Vision:

"To be the premier metalworking company in North America; dedicated to our employees, customers, investors, and communities."

Our Values:

Integrity
Commitment
Excellence

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1.0 Quality Management System Requirements

Based on the scope of work, Century suppliers are required to maintain an effective quality management system, preferably one that conforms to AS9100/ISO 9001 Quality Management System (QMS) Requirements. The QMS shall be robust enough to ensure product conformity, adequate training and competence, and proper notification of nonconforming material.

If the supplier is processing or servicing aerospace product, suppliers QMS shall meet the requirements of AS9100, prevent the use counterfeit parts or materials, and shall ensure that persons within the supplier's organization are aware of:

- Their contribution to product or service conformity.
- Their contribution to product safety.
- The importance of ethical behavior.

In addition, the supplier must meet all other requirements of this manual.

1.1 Quality Manual and Procedures

Suppliers shall have a quality plan and/or quality system manual that defines the elements of the Quality System relevant to the design, development and/or manufacture of product, and shall establish how the quality requirements shall be met.

When requested, the supplier will provide a copy of their Quality Manual and supporting procedures. This includes detailed documents and work instructions specific to production of material for Century.

The supplier shall promptly notify Century, LLC of any significant changes to the suppliers QMS, or key personnel. This includes but is not limited to; reporting structure, changes in scope, name, special process accreditations, status of QMS registrations.

1.2 Control of Sub-tier Suppliers

Suppliers are responsible for the quality of materials and components provided by their sub-tier suppliers and sub-contractors. Century suppliers must impose controls on their sub-tier suppliers that provide quality results and documentation comparable to those applied to our suppliers. The extent of the controls may vary, depending on the nature and complexity of the product and processes, but should generally include:

- Evaluation and qualification of sub-tier supplier facilities
- Controls to ensure that raw materials meet Century's requirements.
- Controls to ensure that any sub-tier suppliers used are approved by Century or Century's customers, where applicable.
- Part qualification, including first article inspection and process capability studies of as applicable.
- Control of drawings/revisions
- Control of nonconforming material
- Corrective action process
- Risk mitigation process.

Where appropriate, Century may specify the sub-tier supplier used; evaluate and qualify the sub-tier facility and assist with directing the sub-tier supplier. Typically, this occurs when the sub-tier supplier is a critical component of the supply-chain process. *Century reserves the right to evaluate the quality system and records of any sub-tier supplier, as necessary. In the event of Century's involvement, this does not absolve suppliers of the responsibility for the quality performance of their sub-tier suppliers.*

2.0 Supplier Qualification Process

All suppliers of production materials and services to Century must be qualified. The extent of the qualification process is dependent upon the criticality of product purchased and other factors determined by Century. The qualification process may include:

- A quality management system self-assessment completed by the supplier, using the Century supplier self-assessment questionnaire.
- An on-site assessment by Century personnel or their authorized agents.
- Designated as approved by a Century customer.

2.1 New Supplier Self Assessment

When a new supplier is being considered, they are sent a quality management system self-assessment questionnaire. The supplier completes the self-assessment and returns it, along with any requested supporting documents.

If any concerns are found, Century will work with the supplier to determine if the necessary requirements can be met.

2.2 On-Site Assessment

An on-site assessment of the supplier's facility may be performed. The on-site assessment may include the following components:

- A quality assessment to determine whether the supplier's quality management system is in place and functioning effectively.
- A business assessment to determine whether the supplier has financial resources, production capacity, and other business resources needed to maintain Century's production needs.

2.3 Periodic Reevaluation- Right of access

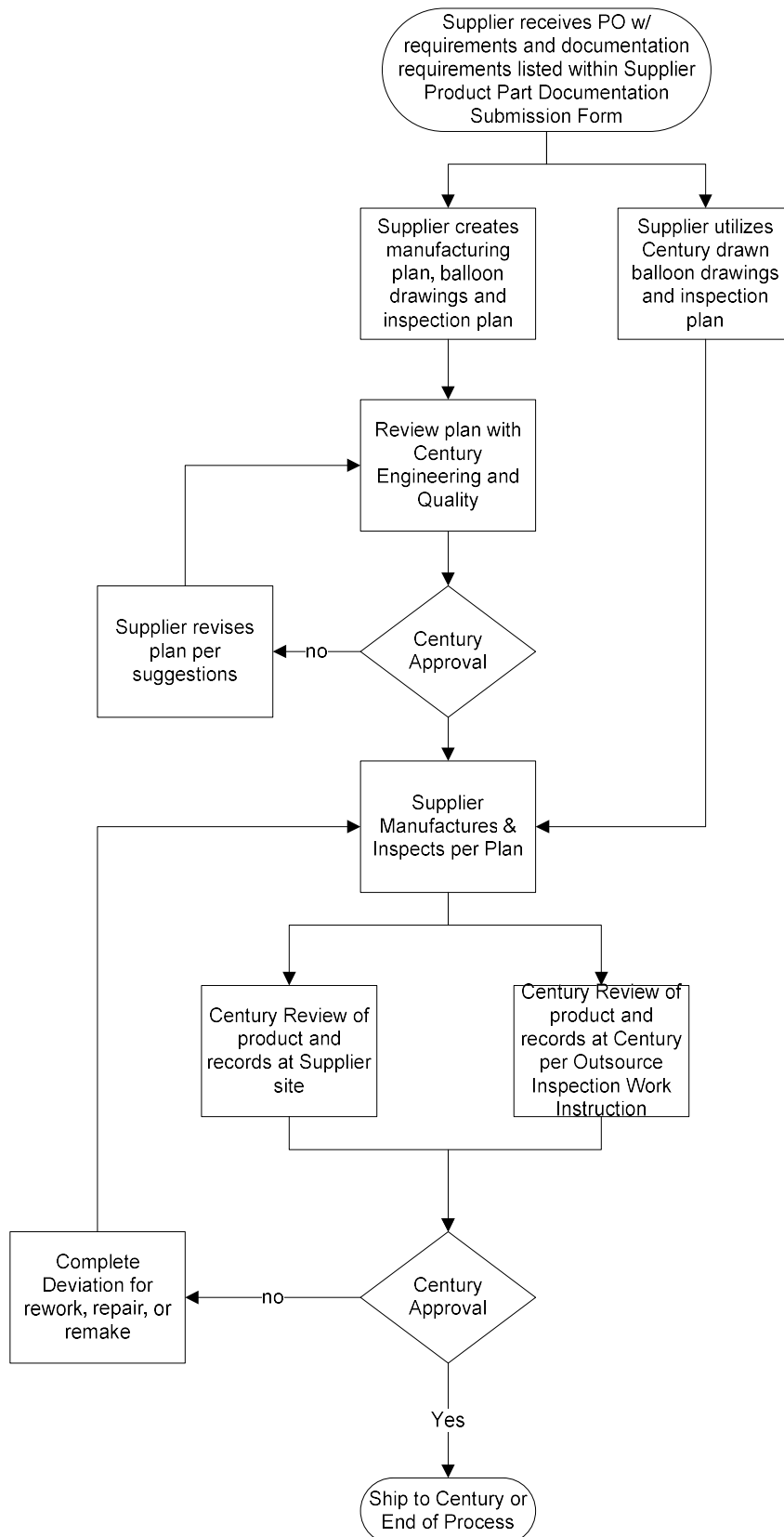
Century periodically reevaluates suppliers using performance data, on-time delivery and/or on-site assessments. If requested, the supplier shall make their facility available for on-site process verification by Century personnel, with reasonable notice.

Periodically, Century may audit the supplier's quality management system. The supplier must make their facility available for on-site process verification by Century personnel at any time, with reasonable notice. This may be a full or abbreviated documentation and on-site audit. The purpose is to evaluate any changes that may have occurred in the supplier's quality management system, and to assess the supplier's continuing commitment to quality improvement.

The supplier shall allow Century right of access by the organization, their customer, and regulatory authorities to the applicable areas of the facilities and to applicable documented information, at any level of the supply chain.

3.0 Part Qualification

3.1 Flowchart for Outsourced Machining Operations



3.2 Control or Inspection Planning

When requested, the supplier must develop a control and/or inspection plan and submit it for approval. The control plan is a detailed description of the supplier's proposed processing steps required to produce the part, and the controls that are put into place to control the quality at each step. The control plan must include all manufacturing steps of in-house processing, external processing, inspection, packaging, and shipping. Suppliers may use their own format. Measuring devices and fixtures designed and built to check Century's parts must be identified with a gage number and must be listed on the control plan if part specific.

The control/inspection plan must include all critical characteristics. Where detailed instructions are required, the supplier details those instructions in a work instruction, or equivalent, which must be listed in the control plan. Inspection methods, sample sizes, and sampling frequencies should be based on the process capabilities, seriousness and likelihood of potential non-conformances, and process stability. Critical characteristics must be inspected 100%, unless otherwise approved.

Unless the inspection plan is specified by Century, the Supplier's inspection plan will require approval prior to Production.

3.3 Dimensional Inspection/ Process Test Report

The supplier inspects or tests each part/sample for dimensions, drawing notes, and specification requirements listed on the current revision of the Century drawing and/or specification or provided inspection plan.

The dimensional inspection/ process test report must include the specification number, specified requirements, and results. Each report must be traceable to the supplier's material, through lot/heat/coil/batch numbers or equivalent and must be signed by the organization that performed the testing. For any requirements that the supplier does not have the equipment to inspect or test, the supplier may obtain reports from their sub-supplier or other test agency.

The supplier is responsible for submitting all Inspection data requested.

All inspection plans and reports shall be submitted in electronic format using Century LLC's secured FTP (file transfer protocol). **Suppliers must request access** through your Century contact to transmit inspection plans and reports using the through the FTP.

In some cases Century personnel may wish to be present during the initial production run. This will allow Century to validate and verify the process before any product is shipped.

The minimum quantity for the production run is agreed upon between the supplier and Century. The parts must be produced under volume-production conditions, including material, machines, tooling, processing parameters, cycle times, etc. Any exceptions to the volume-production conditions must be approved in writing by Century and included in the data package submitted to Century.

3.4 Certificate of Compliance

The supplier must provide a certification of compliance. As determined by Century the certification may include the specification number, specified material and/or physical requirements, the inspection/test results, and a statement of pass or fail. Each report must be traceable to the supplier's material and must be signed by the organization that performed the testing.

3.5 Record Retention

Non-Aerospace Suppliers shall retain all applicable records pertaining to processing Century products for a minimum of 10 years. Aerospace product records must be retained for life of the product plus 10 years. Contact Century for specific requirements.

Century shall be notified prior to disposal of any aerospace records pertaining to processing Century material and given the option to take ownership of records.

4.0 Manufacturing Control

Century suppliers are required to control all manufacturing processes in accordance with the control plan, which is approved during part qualification.

Once the control plan has been established as Frozen it may not be deviated without approval from Century's quality department.

4.1 Nonconforming Product

Supplier shall establish and maintain procedures to control nonconforming product. The procedures shall address the identification, documentation, evaluation, segregation, and disposition of nonconforming product, including determination of the need for a documented investigation.

Nonconforming product found at Century may be returned to Supplier for investigation and analysis through the RMA process. Supplier is responsible for analyzing material, investigating its own processes, and reporting those results to Century within the timeframe requested.

Supplier shall replace nonconforming product free of charge. In the event of a rejection, Supplier shall expedite replacement product.

A supplier is never permitted to knowingly ship product that deviates from the print, specification limits, or design intent without written authorization from Century. If such a condition exists, the supplier may request Century to allow shipment of the product. This is accomplished by initiating a Deviation Request. Requests must be in writing (e.g., email, form, letter).

If directed by Century, the supplier must send tagged samples of non-conforming items to Century for evaluation. The cost of any testing required to determine acceptability of the product will be charged to the supplier. Century will determine the item's acceptability and any corrective actions required beyond the deviation. If approved, Century will send a written deviation to the supplier.

The deviation is intended to be an interim action and **is not** to be construed as an engineering change. The supplier must begin work immediately to correct the condition in question and within the timeframe stated on the deviation. Failure to comply with the mutually agreed upon closure date for the deviation may result in a less than satisfactory evaluation.

Any non-conforming material caused by the supplier which requires rework or is deemed as scrap will be charged back to the supplier. The incurred debit will be communicated to the supplier by the Quality Manager/Designee and coordinated with the Century Finance/Purchasing team.

Any parts sent to Century that have been approved on a Deviation must be clearly identified on the box, container, or other packaging method with the appropriate markings decided jointly by Century and the supplier.

4.2 Identification

The supplier shall ensure that product is identified during all stages of receipt, production, handling, storage, and shipping/distribution while product is in their control. The supplier shall have a means of identifying the manufacturing status of the product while in their control.

Material substitutions are not allowed unless authorized by Century, LLC in writing. Suppliers registered to AS9100 shall establish a counterfeit prevention parts program in accordance with AS9100, latest revision as applicable. A copy of the Suppliers prevention of counterfeit parts program shall be provided to Century, LLC upon request.

4.3 Traceability

Supplier shall be responsible for setting up and maintaining controlled documentation of product traceability during all stages of receipt, production, and shipping/distribution. Records and documentation must remain legible, readily identifiable, and retrievable. Changes to records and documents must be identifiable. Traceability and quality records shall be maintained for a minimum of ten years. All products and components are traced by lot/batch at a minimum. Each shipment shall include a manifest that identifies at a minimum:

- Purchase order reference
- Supplier Manufacturing part number
- Quantity released
- Product part/model number
- Revision of product/part/model number

If applicable:

- Lot controlled product –The list of serial numbers included in the shipment.
- Quantity released
- Process information traced to all levels of manufacture. At a minimum, this includes the operator and date performed.
- Raw material traced to original material manufacturing lot/batch.

4.4 Workmanship

When workmanship standards are not referenced on drawings or specifications, the supplier is expected to follow industry-accepted standards (e.g., ANSI, IPC). When in doubt, consult Century for clarification.

4.5 Safety

At no time should any Century personnel, visitor, or customer, at a Century facility, be exposed to hazardous material or situations that are not inherent in a component's structure. Residues, films, out-gassing products and packaging materials should comply with OSHA (Occupational Safety & Health Association) standards. For items with inherent hazards, safety notices must be clearly observable. Similar expectations are held for Century suppliers in the event a Century personnel visit to a supplier or customer facility.

5.0 Drawings/Specification Changes

5.1 Drawing/Specification and Change Control

The supplier must have a documented system for assuring that the latest Century drawings and specifications are in effect at their facility. The supplier's quality management system must contain a documented procedure that describes the method used for the receipt, review, distribution, and implementation of all changes to drawings and specifications. In addition, the procedure must address control of obsolete drawings and specifications. A documented procedure should also detail the method used to contain new or modified parts until approved by the customer.

5.2 Process Changes, Engineering Changes

Suppliers must have systems in place to control changes to drawings, specifications, processes, or produced parts. Systems should be adequate to control and track changes required and approved by the customer. Any changes requested by the supplier must be approved by both Century and the end-user prior to implementation by the supplier.

NOTE: The Production Planning approval process is directed at a given part number for a specified revision level produced in a specific area of the manufacturer's facility. **Suppliers may not make any changes in their process, location, critical suppliers, material, or to the part without written approval from Century.** The supplier must formally request a process change on all Century components.

6.0 Packaging & Labeling

6.1 Packaging

Each supplier must adequately plan for packaging. Century encourages supplier-initiated packaging improvements. Suppliers will provide packaging that provides protection from damage that may occur. Packaging, labeling, and shipping materials must comply with the requirements of common carriers, in a manner to secure the lowest transportation costs.

Whenever possible, only one part number and one supplier lot is to be packaged in a shipping container. If the shipping container contains more than one part or lot number, each part number and/or lot number must be separately packaged (i.e., bags or boxes) inside the container, labeled as to the contents.

6.2 Labeling

Each shipping container or additional internal packages must contain the following information:

- Century part number (if no Century number exists, supplier part number is used)
- Quantity
- Supplier's Name
- Purchase Order Number
- Lot identification (if required)
- **Any Century or Century customer designation such as Critical Part or Flight safety part.**

6.3 FOD Control

Suppliers for Aerospace components shall have a FOD Prevention Program in accordance with AS9146. This must include a FOD risk assessment, area designation, training and personnel access, product protection, housekeeping and clean as you go processes, and item accountability and control.

7.0 Corrective Action System and Supplier Monitoring

7.1 Corrective Action System

Century requires suppliers to utilize a closed-loop corrective action system when problems are encountered in their manufacturing facility, or after nonconforming product has been shipped to Century.

Century issues a Corrective Action Request (CAR) to a supplier when non-conforming parts are found at Century or a Century customer. They can also be issued as a result of a supplier audit. Corrective Action Reports may be in either Century's format or the suppliers.

The following provides a brief outline of the CAR procedure that suppliers to Century should comply with:

- Century requires the supplier take immediate containment action upon notification of nonconformance. The supplier must submit a written response to Century, reporting the Supplier's initial observation and defining the interim containment plan **within 48 hours** of notification.
- The containment plan must clearly define actions taken at the suppliers' facility to assure no nonconforming product is shipped to Century. If suspect product has already shipped, the supplier must address all suspect stock in transit and any stock at Century. If suspect product has been delivered to the customer location, the supplier may incur costs related to containment or correction of the nonconforming product. The supplier will assist Century in identifying customer risk by identifying all suspect lot numbers and associated quantities involved.
- Within 3 weeks of the original notification, the supplier is expected to report the results of the investigation into the cause of the problem, corrective action, and any action taken to prevent recurrence of the problem, including an effectivity date (the date the corrective action will be implemented).
- The supplier is required to keep Century informed of progress towards implementing the corrective action. When implementation is complete, the supplier will verify that the corrective action is effective in preventing a recurrence.

7.2 Supplier Monitoring

Century Key Suppliers will be evaluated annually, at minimum, for On-Time Delivery, Quality, Communication and Customer Service. Suppliers who do not meet the requirements for each of these categories will be notified in writing.

Century may impose a Corrective Action on suppliers falling below Century's specified targets.

Quality Targets:

Delivery Time – **85%** (on time delivery).

Quality – **90%** (any quality issues resulting in corrective actions).

Communication – **90%** (communication to Century regarding non-conformances, shipment delays, etc.)

Customer Service – **90%** (responses to quality issues, response time for corrective actions, rework, returns).

8.0 Appendix – Specification for Purchased Steel

	MATERIAL TYPE						PROCESSING METHOD
	M-1	M-2	M-7	D-2	A-8	AISI 4150	Swiss Turn
Steel is to be supplied in annealed condition	X	X	X	X	X	X	
Types A, B, C, and D nonmetallic inclusions should rate no higher than 1 ½ using ASTM E45-81 Method D	X	X	X	X	X	X	
All material shall meet or exceed the ASTM A 600 or ASTM A 681 straightness tolerances or the international equivalent	X	X	X	X	X	X	
Steel will have a decarb free surface and have full carbon to the OD. The surface of the steel will be free of cracks, laps, seams, soft & hard spots, and dents.	X	X	X	X	X	X	
Bars are never to be cut to length with an abrasive cut off saw.	X	X	X	X	X	X	
The steel will be re-melted by electro slag re-melt or vacuum arc remelt	X	X *	X		X		
+/- 0.0005 dia on grind; 0.0005" TIR roundness							X
Straightness - 0.50 mm/1 m							X
Chamfered ends 60 deg							X
One end of bar to be sawn (sheared ends create bar feed issues)							X

* For Z-Rolls

DOCUMENT REVISION HISTORY

Document No.	Rev	By	Date	Approval	Description of Revision(s)
QP 7.1.5	0	NM	3/25/18	MB	New document.
QP 7.1.5	1	KLE	5/7/19	MB	Updated to reflect outsourcing of machining operations, addition of Specification of Purchased Material, and forms required by Machining Outsource operations.
	2	K. Brackett	2/14/22 & 9/27/22	AG, KL, WF, MC, MB	Reviewed and revised for AS9100 single cert. Revised Century INC to Century, LLC, revised Quality Policy, and LLC logo. Added 6.3
PR 8.1.5	3	K. Thompson	3/28/25	K.Brackett	Reviewed and revised to current state.
PR 8.1.5	4	K. Thompson	8/27/25	K. Brackett	Added section 7.1 – Supplier Monitoring