



**Quality Quartz Engineering**  
**Supplier Requirements**  
**Manual**

**Quality Quartz Engineering**  
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## **Foreword**

**This manual is intended to supply supplemental requirements to Quality Quartz Engineering (QQE) suppliers who provide material, and services that ensure QQE's ability to produce products that meet or exceed the expectations of our customers. It does not apply to maintenance, MRO, contracts that do not directly impact the quality of QQE's finished products.**

**Contractual agreements that bind QQE's supplier to comply with these requirements are to be established by letter of intent or included in the terms & conditions found on the QQE purchase order.**

**Any question relative to this manual or its requirements should be directed to QQE Purchasing or Quality personnel.**

**The contents of this manual are deemed to be proprietary to QQE and are not to be copied, distributed or shared without the written consent of QQE Executive Management.**

**NOTE: Requirements of this manual are (excerpts from QSP-9 Supplier Control) applicable to suppliers of the QQE-Ohio. Other QQE locations may have additional or different requirements.**

**Eliud Villafana, Vice President of Quality**

## QMS Requirements

Quality Quartz Engineering prefers suppliers maintain a quality management system that results in compliance to Quality Quartz Engineering requirements as well as enhanced customer satisfaction. Flexibility is employed when requiring registration to recognized quality systems through a 3<sup>rd</sup> party registration process. The following guidelines will be used to determine registration requirements for suppliers;

<u>Supplier Type</u>	<u>Registration by 3<sup>rd</sup> Party Req?</u>	<u>Receiving Insp. Performed?</u>
<u>Level I</u> - Critical Suppliers for parts that will affect finished product quality at QQE.	<u>Yes</u>	<u>Where required by internal procedure</u>
<u>Level II</u> -Parts that could affect Quality Quartz Engineering product quality (packaging, calibration, etc.)	<u>Only if required by P.O.</u>	<u>No</u>
<u>Level III</u> - Suppliers that have little impact on product quality (MRO, contract labor, etc.)	<u>No</u>	<u>No</u>
<u>Level IV</u> - No impact suppliers (utilities, etc.)	<u>No</u>	<u>No</u>

## Administrative Requirements for Suppliers

Suppliers may be required to self-assess every 3 years to assure that Quality Quartz Engineering (QQE) Supplier Management personnel have timely contact and business information to facilitate communication between QQE and its supply chain. For companies that have 3<sup>rd</sup>. party registration to recognized QMS systems (ISO9001, IATF16949), the self-assessment will be an update of contacts and company statistics. For suppliers NOT registered, the assessment will include questions about your QMS.

QQE Management reserves the right to visit for a verification audit when needed. Conditions that may trigger this verification could include (2 separate nonconformances in a rolling 12-month period plus additional nonconformances in the subsequent 6 months);

1. Deteriorating Quality or Delivery Metrics
2. Quality Quartz Engineering Customer Request
3. Significant changes in personnel or ownership.

A copy of the self-assessment will be made available to the supplier when appropriate.

### **Supplier Selection**

Vendors to Quality Quartz Engineering are broken down into four categories:

1. **Level I: Vendors of product raw materials, and subcontract part processing and inspection.**
2. **Level II: Vendors of support services/materials such as packaging, tooling and calibration.**
3. **Level III: Maintenance services and supplies.**
4. **Level IV: Items such as office supplies, etc.**

Different levels of control will be applied to the vendors, based on their assigned level.

- **Level I vendors**
  - **Must maintain compliance to a quality system recognized by a governing body, such as ISO9001**
  - **Scorecards may be provided to these vendors on a periodic basis to keep the supplier informed regarding their performance to purchase requirements. These vendors can be added or removed from the approved vendor list with the appropriate evaluation and approval, and with approval from the customers of QQE.**
  - **All relevant requirements placed on QQE by their customer base must be considered applicable to QQE's supply base.**
- **Level II vendors**
  - **Should maintain some quality system certification, such as ISO9001. The only exception to would be calibration sources. Calibration must be performed by either the original equipment manufacturer or a lab certified to ISO17025. These vendors can be added or removed from the approved vendor list with the appropriate evaluation and approval.**
- **Level III vendors are sourced entirely based on their history. These vendors can be added or removed from the approved vendor list without any formal review.**
- **Level IV vendors are under no control and do not appear on the approved vendor list.**

**The initial release of the approved vendor list will include all current vendors of all materials and services within the guidelines established in section 4.1.**

**Vendors identified as possibly being added to the approved vendor list will be initially considered based on:**

- **The ability of the supplier to provide materials/services of the desired quality and delivery requirements.**
- **Cost**
- **Customer mandate**
- **Vendors specified by the customer(s) will be controlled in the same manner as all other suppliers of the same level.**
- **The ability of the supplier to meet any established and documented control criteria.**
- **Vendors may be added to the list on a conditional basis, at management's discretion, until such time all the required criteria can be met.**

**As needed or when possible, on-site visits to the vendors' facilities may be performed.**

**It is the responsibility of Purchasing to oversee the purchasing function and performance of the Level I suppliers.**

**Any supplier quality or delivery problems will be recorded on the Supplier Incident Log by a member of the Supply Chain group.**

**Any Supplier quality or delivery failure may result in having a corrective action request sent to the offending supplier and be handled with a Corrective Action Report.**

**Failures by customer specified vendors may be reported to the customer for use in their evaluation of their preferred vendor list.**

**Failure by the supplier to respond to any corrective action requests issued may result in removal from the approved vendor list until such time evidence of an effective corrective action plan is provided.**

**Supplier performance will be reviewed at the management review meetings.**

**When required or appropriate, critical consumable products will be identified on the approved vendor list to ensure the items listed are purchased from the specified vendor only.**

**Critical consumables include all materials consumed in the manufacture of products intended for sale to the customer.**

### **POR and CE! Requirements**

**POR (Process of Record) control and CE! (Copy Exact) are mandatory for Level 1 suppliers and may be required of QQE's sub tiers and Suppliers. Level I vendors may be required to train employees on POR and CE! control and submit training records to QQE. POR and CE! control for vendors other than Level I will be invoked by.**

- 1. Purchase order or any other stated or unstated Customer-Specific Requirements**
- 2. Long Term Agreement**
- 3. E-mail**

**If POR and CE! control is invoked, the supplier is expected to have written procedures stipulating all relevant processing information required to make a product that:**

- Meets Quality Quartz Engineering Specifications**
- Does not change over time. Product that trends at one end of a specification window may not suddenly trend on the opposite side of that window, regardless of conformance to spec.**

**POR and CE! training will be made available by Quality Quartz Engineering and may include discreet forwarded training information or access to web-based training if POR/CE! control is expected.**

**Process changes to suppliers under POR control will be under tighter scrutiny than ordinary suppliers since Quality Quartz Engineering is also under POR control with its customers. All process changes must be communicated in writing to QQE Quality personnel and agreed to in writing prior to implementing the change.**

### **Measuring and Gage Requirements**

**Suppliers are requiring to adhere to AIAG MSA guidelines regarding gauge development and deployment.**

**Gages shall be calibrated at proper intervals following industry practice such as AIAG or NADCAP requirements.**

**Measuring devices shall exhibit resolution at least TEN TIMES the units used to specify requirements. For instance, if the total tolerance is .005, then gages must read at intervals of .0005 or less.**

**If a gage is found to be significantly out of calibration during use, a plan must be executed to find, contain and re-measure product where that measuring device was deployed.**