

# QUALITY PROCUREMENT CLAUSE ATTACHMENT TO KISTLER INSTRUMENT CORPORATION PURCHASE ORDERS

## 1.0 General Cleanliness of Product Requirements

- 1.1 Addressing Foreign Object Damage (FOD) and Foreign Object Debris (FOd)
  - 1.1.1 The supplier shall establish, implement and maintain processes to account for and control applicable work areas, consumables, hardware and personal items to mitigate FOD and FOd risk impacting the product.
- 1.2 Parts shall be cleaned to remove contaminants before packaging.

## 2.0 Preservation & Packaging

- 2.1 Special handling and precautions are required for Electrostatic Sensitive Devices. If there are any questions, then contact the Kistler Buyer for clarification.
- 2.2 Parts shall be packaged in a way that prevents the occurrence of damage during shipment.

## 3.0 Traceability

- 3.1 Batch, Lot and/or Date Code shall be used for traceability, as applicable.

## 4.0 Notification of Change

- 4.1 The supplier shall notify Kistler of any proposed changes in design, fabrication, method, or process, and obtain approval of the change from Kistler.

## 5.0 Certificate of Compliance

- 5.1 Supplier to provide with each shipment a certificate of compliance or certification on packaging slip bearing an authorized signature and title, certifying that the products furnished comply with the requirements of the purchase order and all applicable drawings or specifications.

## 6.0 Source Inspection (as required)

- 6.1 **Kistler Source Inspections**

The supplies on this order are subject to source inspection. Notify the buyer who handles your account when material is ready for inspection or when practicable 5 days in advance.

Source Inspection may accomplish any or all of the following: vendor surveys or audits; in-process and end item inspection; witness and/or monitor acceptance testing; inspection of end item per outline drawing. Training records should be made available to review by Kistler during the visit.

## 7.0 Material Safety Data Sheets and Shelf-Life Certification

- 7.1 Are required for all chemicals, epoxies, and adhesives. Shelf- life certification shall include batch number, manufactured date and expiration date. 75% of the shelf life is desired.

## 8.0 Machined Parts - Inspection Reports and Test Reports

- 8.1 First article inspection reports are required with discrete inspection results per AS9102. Supply data, where applicable, for every dimension on the drawing.
- 8.2 Inspection reports for machined parts are required. These reports shall include the following information:
  - 8.2.1 Purchase Order number,
  - 8.2.2 Kistler part number,
  - 8.2.3 Kistler part number revision,
  - 8.2.4 Kistler drawing number,
  - 8.2.5 Kistler drawing version,
  - 8.2.6 Part description,
  - 8.2.7 Sample size,
  - 8.2.8 Date of inspection,
  - 8.2.9 Quantity
  - 8.2.10 Inspector name,
  - 8.2.11 Inspection characteristics,
  - 8.2.12 Inspection results,
  - 8.2.13 Record actual data for all critical, major and minor samples per Table 1 on page 2,
  - 8.2.14 For angles and chamfers, record data for one piece only and visually inspect the remainder of the minor sample,
  - 8.2.15 For surface finishes, use a micro-finish comparator or profilometer on a minor sample,
  - 8.2.16 For flatness measurements on lapped surfaces  $\leq 0.0002"$ , use a calibrated optical flat with monochromatic light,
  - 8.2.17 For flatness measurements on non-lapped surfaces  $> 0.0002"$ , use an indicator and record data on a minor sample,
  - 8.2.18 Visually inspect for burrs on a minor sample using a 10x magnification illuminated microscope,
  - 8.2.19 A cross sectioned part shall be supplied for all internal dimensions that are not measureable by conventional means. Supply measurements for the one-half piece,
  - 8.2.20 Threads shall be checked with a calibrated go/no thread gage on a critical sample,
  - 8.2.21 For perpendicularity and concentricity, measure one part and supply data for one piece,
  - 8.2.22 For weld radii  $\leq 0.002"$ , a critical sample is recorded,
  - 8.2.23 Heat treat sample must be provided for any parts that are heat treated,
  - 8.2.24 Plating certification, if applicable,
  - 8.2.25 Failures shall be notated on report in red,

**Table 1: Sampling Plan**

Lot Size	Critical Dimensions	Major Dimensions	Minor Dimensions
	AQL=NA	AQL=1.0	1 <sup>ST</sup> , middle, last
2 to 8	100%	100%	3pcs
9 to 15	100%	13pcs	3pcs
16 to 25	100%	13pcs	3pcs
26 to 50	20pcs	13pcs	3pcs
51 to 100	20pcs	13pcs	3pcs
101 to 150	30pcs	13pcs	3pcs
151 to 280	30pcs	20pcs	3pcs
281 to 500	50pcs	29pcs	3pcs
501 to 1200	60pcs	34pcs	3pcs
1201 to 3200	64pcs	42pcs	3pcs
3201 to 10,000	200pcs	50pcs	3pcs
10,001 to 35,000	350pcs	60pcs	3pcs

**9.0 Raw Materials - Mill Certification**

9.1 Each shipment shall be accompanied by a certification bearing an authorized signature and title including specifications per drawing requirements along with chemical, mechanical and physical test reports and must meet Conflict Minerals and Specialty Metals requirements.

**10.0 Hybrid Electronics**

10.1 Test data is required for all hybrids. These reports shall include the following information: purchase order number, Kistler part number, date of test, lot size, test parameters, test results, accept/fail, and signature of tester.

**11.0 Metrology - Calibration System Requirements**

11.1 Supplier's calibration and control of test equipment, tools and gages should comply with ANSI/NCSL Z540-1994 and/or ISO/IEC 17025 and be traceable to the National Institute of Standards and Technology or another nationally recognized standard.

**12.0 RoHS Compliance (excludes shipping materials)**

- 12.1 Product must be compliant to European Union (EU) Directive 2015/863 (RoHS3)
- 12.2 Supplier shall certify that RoHS substances were not introduced into the product during the manufacturing process.
- 12.3 Suppliers shall certify that the product is built to the specifications, prints and/or defined requirements.
- 12.4 If Kistler specifies the raw materials, assemblies or component Supplier shall certify via a material declaration that product has been built in accordance with these requirements and specifications.
- 12.5 Kistler reserves the right to have any advertised RoHS compliant product tested for RoHS compliance. If product is determined to be noncompliant it is the responsibility of the supplier to replace or correct all noncompliant material at the seller's expense.
- 12.6 Supply RoHS Certificate of Compliance with every purchase order.

**13.0 REACH Compliance**

- 13.1 Provision of a high level of protection of human health and the environment from the use of hazardous chemical.
- 13.2 When applicable, supplier adheres to all delivery requirements and observes all provisions which are in force in the European Union:
  - a. (EC) No. 1005/2009 on substances that deplete the ozone layer
  - b. (EC) No. 842/2006 on certain fluorinated greenhouse gases
  - c. (EC) No. 1907/2006 (known as REACH) for registration, evaluation, authorization and restriction of chemical
  - d. Directive No. 2006/66/EC for batteries and accumulators
- 13.3 When applicable, supplier makes sure to have demonstrated to European Chemicals Agency how substances made can be safely used without harming the end customer.
- 13.4 Supplier ensures hazardous materials are not present, even as residual of processing, in the products provided.

**14.0 Counterfeit Parts Policy**

14.1 KISTLER's Counterfeit Part Policy is to only purchase parts from authorized manufacturer's distributors. If the distributor is not authorized, or ISO9001 and/or AS9100 certified, then the supplier shall notify the Kistler Buyer in writing for disposition before proceeding.