

QUALITY PROCUREMENT CLAUSE ATTACHMENT TO KISTLER INSTRUMENT CORPORATION PURCHASE ORDERS

1.0 General Requirements

1.1 Parts shall be cleaned to remove contaminants before packaging.

2.0 Packaging

2.1 Parts shall be packaged to prevent damage during shipment. Special handling and precautions are required for Electrostatic Sensitive Devices. If there are any questions contact the Kistler Buyer for clarification.

3.0 Traceability

3.1 Lot date code or lot control number shall be used, 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.

6.2 Customer Source Inspection

All work on this order is subject to inspections and test by Kistler's customer at any time and place. The customer quality representative, who has been delegated quality assurance functions on this procurement, shall be notified immediately upon receipt of this order. The customer representative shall also be notified forty-eight (48) hours prior to the time articles or materials are ready for inspection or test.

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 must be left.**

8.0 Machined Parts - Inspection Reports and Test Reports

8.1 First article inspection reports are required with discrete inspection results. 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:

- o 8.2.1 Purchase Order number,
- o 8.2.2 Kistler part number,
- o 8.2.3 Date of inspection,
- o 8.2.4 Lot size,
- o 8.2.5 Sample size,
- o 8.2.6 Inspection characteristics,
- o 8.2.7 Inspection results,
- o 8.2.8 Record actual data for all tolerances $\leq \pm 0.002$ " for a major sample (AQL 1.0) per the C=0 Zero Acceptance Plan see Table 1 on page 2,
- o 8.2.9 For all tolerances, > 0.002 ", record data for a minor sample (AQL 4.0) per the C=0 Zero Acceptance Plan,
- o 8.2.10 For angles and chamfers, record data for one piece only and visually inspect the remainder of the minor sample,
- o 8.2.11 For surface finishes, use a micro-finish comparator or profilometer on a minor sample,

- 8.2.12 For flatness measurements on lapped surfaces $\leq 0.0002''$, use a calibrated optical flat with monochromatic light,
- 8.2.13 For flatness measurements on non-lapped surfaces $> 0.0002''$, use an indicator and record data on a minor sample,
- 8.2.14 Visually inspect for burrs on a minor sample using a 10x magnification illuminated microscope,
- 8.2.15 A cross sectioned part shall be supplied for all internal dimensions that are not measurable by conventional means. Supply measurements for the one half piece,
- 8.2.16 Threads shall be checked with a calibrated go/no thread gage on a major sample,
- 8.2.17 For radii, perpendicularity and concentricity, measure one part and supply data for one piece,
- 8.2.18 Mill certification for the raw material for which the parts originated,
- 8.2.19 Heat treat sample must be provided for any parts that are heat treated.
- 8.2.20 Plating certification, if applicable,
- 8.2.21 Acceptance and failures shall be notated on report,
- 8.2.22 Inspector name shall appear on the report.

Table 1: Zero Acceptance Number Sample Plan (C = 0)

Note: The Acceptance number in all cases is ZERO
(Index Values are associated AQLs)

Lot Size	Index Value 0.65 for Critical Dimensions	Index Value 1.0 for Major Dimensions	Index Value 4.0 for Minor Dimensions
2 to 8	100%	100%	3
9 to 15	100%	13	3
16 to 25	20	13	3
26 to 50	20	13	5
51 to 90	20	13	6
91 to 150	20	13	7
151 to 280	20	20	10
281 to 500	47	29	11
501 to 1200	47	34	15
1201 to 3200	53	42	18
3201 to 10,000	68	50	22
10,001 to 35,000	77	60	29
35,001 to 150,000	96	74	29
150,001 to 500,000	119	90	29
500,001 and over	143	102	29

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.

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 shall comply with MIL-STD-45662A, 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 2011/65/EU. EU Directive 2011/65/EU supersedes, EU Directive 2002/95/EC as of January 2, 2013.

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 highlighting "RoHS" on the certificate.**

13.0 Counterfeit Parts Policy

13.1 KISTLER's Counterfeit Part Policy is to only purchase parts from authorized manufacturer's distributors. If the distributor is not authorized, the supplier shall notify the Kistler Buyer in writing for disposition.

14.0 Vendor Acceptance (Please return within 30 days)

_____ **Title**
Print Name

_____ **Date**
Signature