KISTLER

measure. analyze. innovate.

Terms and conditions for initial sample inspections and for ensuring follow-on deliveries

1. Terms and conditions for initial sample inspections (ISIR: Initial Sample Inspection Report)

1.1 Objective of the initial sample inspection

By submitting initial samples, the supplier must prove that it is able to meet and test the defined specifications under series production conditions.

1.2 Reasons for initial sample inspections

Initial sample inspections are required under the following circumstances:

a. New supplier
b. Change to drawing – change to characteristic(s) on drawing
c. New part/material
d. Change of subcontractor
e. Relocation of production sites
f. Changes to test procedures / equipment
g. Relocation of production facilities at the site
h. Changes to production processes, sequences, materials and chemicals used (also in case of such changes by subcontractors)

Prior to the introduction of a new part or assembly, Kistler requests initial samples from the supplier by means of a written purchase order, with an additional text entry and/or position on the purchase order. If a change involving the circumstances listed above is implemented by the supplier, Kistler Purchasing must be notified. The resultant scope of re-sampling must be agreed with Kistler in writing on a case-by-case basis.
If repeated re-sampling is necessary due to causes for which the supplier is responsible, Kistler reserves the right to charge the relevant costs to the supplier.
Initial sampling focuses on parts which are developed, specified and technically documented by Kistler. If a component that is to be sampled comprises several individual parts specified by Kistler (which may also constitute subassemblies), then all the individual parts, subassemblies and the component itself must undergo the initial sampling procedure.
In case of extensive assemblies that originate from the supplier's development work and whose function, manufacturability and verifiability were already proven during the development phase, initial sampling can be limited to the condition on delivery, e.g. surface treatment and/or connection dimensions.

1.3 Subject of initial sample inspection

Unless defined otherwise, three units must be removed at random from the first production batch for the purpose of initial sampling; they must be identified, e.g. by consecutive numbers, so that the inspection results can be assigned individually.
However, the following aspects may play a part in the definition of the number of initial samples to be taken:

a. If multiple identical jigs, casting or pressing molds, dies or matrices are used, at least one dimensionally tested sample is required in each case.
b. For parts from multiple molds, at least one part from each cavity must be inspected.

1.4 Compilation of Initial Sample Inspection Reports (ISIR) by the supplier

Before delivering the initial samples, the supplier itself must ascertain that all the prescribed characteristics comply with the requirements specified by Kistler. This must be proven by the initial sample inspection records. Characteristics which cannot be inspected by the supplier itself must be documented by means of test certificates from appropriate institutions. The inspection records must be enclosed with the initial samples.
In case of initial samples due to changes, the changed component and/or the changed part must also be noted in writing in the initial sample documentation.

1.5 Procedure for the initial sample inspection

In connection with its acceptance of an order, the supplier explicitly undertakes to carry out the initial sample inspection.
The following points must be noted:

a. All markings applied to the sample parts for the purpose of measuring them must be retained so that cross-check (control) measurements can be performed on the same basis.
b. If optical and/or tactile measuring equipment is used, the parameters determined must be transferred to the ISIR and the measurement records must be appended to the inspection report.
c. Cut specimens of sampled materials (including heat-treated and/or surface-coated parts) must be submitted by the supplier if they are used to prove the correct composition or condition of the product and/or compliance with the specifications.
d. For scheduling reasons, and if the supplier has ascertained the flawless quality of the first series batch by means of initial sampling, the supplier may deliver the initial samples and the relevant series batch to Kistler at the same time, but they must be clearly identified.
e. Kistler reserves the right to carry out onsite acceptance of commissioned tools/molds and the related series process. In such cases, the supplier will receive early notification.
f. In cases where parts are manufactured specifically for Kistler, one copy of the Initial Sample Inspection Report must be kept by the supplier for the production period of the part in question.

1.6 Adherence to agreed delivery deadlines

Agreed delivery deadlines are deemed not to have been met if defects which cannot be accepted are still present on the parts. For this reason, Kistler expects that the parts will be sampled at the agreed time, in accordance with the drawings and/or the agreements.

1.7 Assessment and release of initial samples for series deliveries

The Initial Sample Inspection Reports and initial samples are reviewed by Kistler in respect of dimensions, materials and/or function. If the results meet the requirements, a written release for series deliveries is issued.
If defects have occurred in the processes that influence product quality, the measures agreed with Kistler's authorized representative must be implemented and/or confirmed prior to series release.

961-399e-01.20

In this case, and also in case of failure to meet the agreed delivery deadlines, Kistler is not obligated to accept submission of further samples, and/or to introduce further quality assurance measures at the supplier's premises. Kistler may rather, without obligations of any nature, refuse further sampling and may terminate any delivery agreement which may already have been concluded.
In the event that initial samples are rejected, and in response to a request from Kistler Purchasing, the supplier must immediately notify a new completion deadline for corrected initial samples. Deviations from the requirements which were not identified during initial sample inspections may also be the subject of complaints at a later stage.

1.8 Shipment of initial samples

Kistler receives the initial samples, packed together with the initial sample documentation, separately from other deliveries. In order to exclude confusion, the identification marking for the samples must be applied clearly and permanently on the part itself and/ or on the outside of the package. This identification marking takes the form of a tag, adhesive strip or similar, and it is also present on the delivery note. The identification comprises the following data, which must also be stated in the Initial Sample Inspection Report:

a. Number of samples, material number, designation, change status (index) and purchasing document.
b. Missing or incomplete initial sample documentation will result in a negative supplier evaluation.
c. If the documentation for the initial samples is missing or incomplete, and if the documentation is not supplied within an appropriate period despite a reminder, Kistler reserves the right to return the goods.

1.9 Costs of initial samples

Unless contractually agreed otherwise, Kistler pays the costs of flawless initial samples which meet the specified requirements. The supplier pays the costs of initial samples which are the subject of justified complaints, or which are unusable.

1.10 Retention samples

Definition:
Retention samples are parts subject to mandatory initial sampling which are used to conserve the tested condition in hardware after the start of series production.

Objective:
The objective is to enable identification of causes, evaluations and necessary measures (such as recall actions) quickly and purposefully in case of subsequent series problems, . Suppliers are recommended to take retention samples of this sort and to store them for a period of 13 years.

2. Ensuring follow-on deliveries (quality measures during series production)

2.1 Traceability

The supplier undertakes to ensure the traceability of products which it delivers. In the event that a deviation is identified, traceability must be possible so that containment measures can be implemented, at least in respect of the affected deliveries. On request, Kistler will inform the supplier of data at Kistler's disposal that is required for traceability.

2.2 Ensuring series quality

In accordance with ISO 9001, the supplier is obligated to keep appropriate process documentation and, if need be, to make such documentation available to Kistler on request. As a general rule, Kistler only accepts material that is of flawless quality.

2.3 Incoming goods inspection

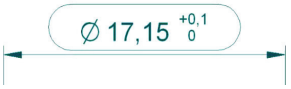
Due to the measuring equipment and facilities that are available, incoming goods inspections are only possible to a limited extent at Kistler. Workpieces with dimensions larger than: W300xL400xH200 mm and/or heavier than 20 kg cannot be inspected reliably and/or cost-effectively. We are therefore reliant on suppliers who ensure compliance with the quality requirements by means of inspections performed by them inhouse or, if need be, by an external service provider.
Appropriate documentation for each delivery must also be enclosed with such items, even after successful initial sampling, in consultation with Kistler Purchasing.

2.4 Quality assurance – series

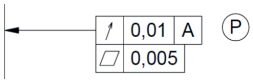
For random sample inspection of qualitative characteristics, Kistler recommends that suppliers perform inspections according to the procedure for random acceptance sample inspection, based on the number of faulty units or faults (inspection by attributes), as per DIN ISO 2859-1:1993-04 (AQL: acceptance quality limit).

2.5 Dimensions and/or characteristics to be inspected (function-critical characteristics)

For inspection characteristics defined on the drawing, it is a general requirement that the machine capability (cmk) must be proven. The scope of random sampling to determine the cmk value must correspond to at least 50 parts in one production batch. For batch sizes of less than 50 parts, all parts in the production batch must be measured. The cmk values must be available for the initial sampling. Alternatively, a 100% inspection with documented ACTUAL values is permitted. inspection characteristics / dimensions are identified on the drawing by the following symbols:



Example: Test characteristic: dimensioning



Example: Test characteristic: form/shape tolerance/positional tolerance

All product and process characteristics must be compliant with the specifications. However, special attention is required for function-critical characteristics, because deviations in these characteristics could lead to a functional failure of the sensor or of other components. Kistler defines the function-critical characteristics for parts in cases where the supplier has no responsibility for the design. For parts where the supplier has responsibility for the design, such characteristics are defined by joint agreement. The supplier submits specific proposals in this regard. The defined function-critical characteristics must be transferred to the supplier's own drawings, work schedules and inspection plans.

2.6 Requalification – series

Changes to processes can creep in over months or years, but they may not be discovered during the incoming goods inspection carried out by Kistler. The requalification inspection entails a complete and systematic inspection of series parts to determine whether they still comply with the specifications. A requalification inspection comprises complete testing and inspection of dimensions, materials and (where appropriate) function. The inspection results are documented in the form of an Initial Sample Inspection Report (ISIR).

961-399e-01.20

KISTLER
measure. analyze. innovate.

At regular intervals and according to internal inspection logic, Kistler carries out requalification inspections for series parts in conjunction with the incoming goods inspection.
Should deviations from the specifications occur in the aforementioned requalification inspection or in similar cases, Kistler reserves the right to require requalification inspections during series production at the supplier's premises and at the supplier's expense. This may also apply to similar parts in the same family of parts.
Until the required degree of process reliability has been restored, the supplier must implement stricter quality inspections, which may extend to 100% inspection of the goods it delivers.

2.7 Complaints procedure

A complaint in the form of an 8D Report is used by Kistler to notify suppliers about a deviation that has been identified. Suppliers are required to initiate immediate measures to analyse the identified deviations and to define, implement and monitor suitable remedial measures.

Complaints must be processed as 8D Reports. They must be submitted to Kistler as written comments, preferably in digital form. Unless agreed otherwise in advance, the 8D Report must be sent to Kistler within the following periods:

a. D1 – D3 within 48 h
b. D4 – D8 within 10 working days

If the supplier cannot use the 8D form that is provided, the supplier's own form must be used; in respect of the key points, this must be redundant in relation to the Kistler form. If the period required for analysis of the circumstances differs from those stated above, or if the deadline situation requires a comment by the supplier at short notice, the responsible complaints reporter at Kistler must be notified immediately. In case of complex deviations, the objective should be to carry out a joint analysis which may also take place on site.

961-399e-01.20