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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 6378-2002

Replacing GB/T 6378-2002

**Sampling procedures for inspection by variables -- Part 1: Specification
for single sampling plans indexed by acceptance quality limit (AQL) for
lot-by-lot inspection for a single quality characteristic and a single AQL
(English Translation)**

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Foreword

GB/T 6378 "Sampling Inspection Program" will be divided into the following sections, the expected structure and the corresponding international standards and will be replaced National standards.

--- Part 1. by acceptance quality limit (AQL) to retrieve a single quality characteristic and a single AQL sampling batch inspection once meter Plan (ISO 3951-1:2005, IDT; instead of GB/T 6378-2003)

--- Part 2. by acceptance quality limit (AQL) to retrieve a sampling program for batch inspection of independent quality characteristics (corresponding to ISO 3951-2:2006)

--- Part 3. by acceptance quality limit (AQL) to retrieve the second batch inspection sampling plan (ISO 3951-3:2007)

--- Part 4. The mean level of declared quality assessment procedures (ISO/WD3951-4.2007, NEQ; instead of GB/T 14900-1994)

--- Part 5. Measurement by acceptance quality limit (AQL) to retrieve sequential sampling inspection plan (corresponding to ISO/FDIS3951-5.2005) GB/T 6378 This part identical with the international standard ISO 3951-1:2005 "Sampling procedures for inspection of measurement - Part 1. press reception Quality limit (AQL) to retrieve the provisions of a single quality characteristic and a single AQL test batch of a sampling plan. " this section GB/T 6378 instead of GB/T 6378-2003 "sampling inspection procedures and charts percent nonconforming (applies even Continued testing batch). " This portion of the GB/T main difference between 6378-2003 as follows.

- Cancel the terms related to substandard classification.
- Canceled the implementation process.
- AQL is acceptance quality limit (AcceptanceQualityLimit) acronym, it is more than GB/T 6378-2003 can be accessed using Reception quality level (AcceptableQualityLevel) more accurately reflect its role.
- GB/T 6378 This section applies to a single normal distribution of quality characteristics of sampling. GB/T 6378 This section also Including bilateral joint specification limit situation, and about the separation of content and complex bilateral specification limits the GB/T 6378.2 in at Management. More general procedures for multiple quality characteristics and/or multiple AQL will be given in GB/T 6378.2 in.
- GB/T 6378 Ben sampling program has been part of the amendment to the GB/T 2828.1 Sampling programs operating characteristic curve A better match. Ju method and sample volume sigma law both in the primary table row is constant.
- All received constant (see Appendix B, Appendix C, Appendix G and Appendix I) after correction to three decimal columns in the corresponding AQL in.
- Recalculated the operating characteristics of all table values, like normal, like to relax tightened inspection and processing tests also carried out direct calculations.
- Removed appendix contains general statistical theory. Plans to move its content on Sampling Inspection Program Guides are.
- In the appendix to reschedule the execution of the program required form.

This section of the Appendices A to N are normative appendix.

This part of the application by the National Standardization Technical Committee on statistical methods and focal points.

This section drafted by. People's Liberation Army Ordnance Engineering College, China National Institute of Standardization, Academy of Mathematics and Systems Science Research Institute, Suzhou University, Fuzhou Chun Lun Tea Limited.

Introduction

GB/T 6378 This section provides a sample measurement system acceptance sampling inspection plan, which takes acceptance quality limit (AQL) for the cable lead. GB/T 6378.2 gives a wider range of technical process. GB/T 6378 This section is GB/T 2828.1 supplement.

Objective GB/T 6378 Part of the process is given to ensure that the actual quality level is better than the reception quality limit contact with a high probability of installment Income, while ensuring the actual quality level is inferior to the reception quality limit granted to low

probability of receiving. The above object is transferred through the supplied standard Rules implemented.

- a) When they find the quality deteriorated, by moving to tightened inspection or sampling pause automatically provide protection to the consumer;
- b) if consistently good quality, by transferring to the small sample size sampling scheme to reduce inspection costs to stimulate the production side.

GB/T 6378 this part of the grant received by the process is essentially the percentage of nonconforming product (from the process of randomly selected samples of each batch Estimated) decision.

Inspection procedures GB/T 6378 This section applies to a continuous series of discrete individual batches of products, that all products produced by the same party in the same Production process available. If products from different manufacturers and production processes, respectively, should use GB/T 6378 this part.

GB/T 6378 This section applies only to a single quality characteristic can be measured in a continuous scale; for two or more quality characteristics of the situation See GB/T 6378.2.

GB/T 6378 This section assumes that the measurement error is negligible. When you need to consider the measurement error, see reference [17].

GB/T 6378 This section relates only to the bilateral joint specification limit, other forms of specification limits, see GB/T 6378.2.

This standard is to nonconforming percentage of quality indicators measured test includes several models, the possible combinations of users, the more Complex.

--- Standard deviation is unknown, or the beginning of the unknown can then be estimated fairly accurately, or at the start of testing that is known;

--- Joint bilateral or unilateral specification limit specification limit;

--- Normal inspection, tightened inspection or reduced inspection.

GB/T 6378 This section contains 14 appendices. Appendices A to I give different sampling procedures required tables. Appendix J Description How to obtain the sample standard deviation $\bar{J}_u$ and process standard deviation σ . Appendix K provides a statistical theory to calculate consumer's risk, but the list is given Normal, tightened and relaxed $\bar{J}_u$ corresponding risk value method and σ method when testing. Appendix L gives similar information producers risk. Appendix M A general formula σ operating characteristics of the law. Appendices N specifically gives the GB/T 6378 Part $\bar{J}_u$ methodology in the amount of 3 and 4 when the estimation process defective product rate of statistical theory, because the technology to handle this situation two cases with different amounts of other samples.

To facilitate the application of GB/T 6378 this part, Table 1 user in different situations may want to use the content of this section and chart gives guidance. Although Table 1 only the contents of the first chapter about 15,16,20,21 and 22, but no matter what kind of situation, you must first read Reading other relevant provisions.

GB/T 6378.1-2008/ISO 3951-1:2005 Book Book Book . 1 . 2 . 3 . 1 . 1 , A . 2 . 1 . 1 . 2 . 1 . 1 , A . 2 . 1 . 1 . 4 . 1 . 1 , A . 2 , D . 1 (Correct), (Correct), Ju -Ju -. 1 . 3 . 1 . 1 , A . 2 . 1 , E . 2 . 3 . 1 , B . 2 . 2 . 3 . 1 , C . 2 . 2 . 3 . 1 , D . 2 Ju -Ju -. 2 . 3 . 1 , C . 2 , E . 4 . 5 . 1 , B . 3 . 4 . 5 . 1 , C . 3 . 4 . 5 . 1 , D . 3 Ju -Ju -. 4 . 5 . 2 . 2 . 2 Ju -Ju -. 4 GB/T 6378.1-2008/ISO 3951-1:2005 Sampling Inspection procedures - Part 1. press reception Quality limit (AQL) to retrieve a single quality characteristic A sampling program and batch testing of single AQL

1 Scope

GB/T 6378 This section provides a sample metering system acceptance sampling plan, accepting this section installment consists essentially of Process percent nonconforming (from the process random samples of each batch to estimate) decision.

Sampling procedures for inspection of this section does not apply to non-conforming product has been previously screened lot.

This section is under the following conditions.

- a) Inspection procedures in this section applies to a continuous series of discrete individual batches of products, that all products produced by the same parties over the same production Cheng provided;
 - b) consider only a single product quality characteristics x_0 , the quality characteristics shall measure a continuous scale;
 - c) measurement error can be ignored, that is, its standard deviation is not more than 10% of the standard deviation of the process;
 - d) the production process is stable (in statistical control state), and the quality characteristics x_0 approximate normal distribution or normal distribution;
 - e) if the contract or the standards set forth in the specification limit U, lower specification limit L, or at the same time it provides for both; if and only if the product is measured when quality characteristics is qualified to meet one of the following inequality x_0 product.
 - 1) quality characteristics $x_0 \geq L$ (ie, not below the lower specification limit);
 - 2) quality characteristics $x_0 \leq U$ (ie, no higher than the upper specification limit);
 - 3) quality characteristics $L \leq x_0 \leq U$ (quality characteristics between lower specification limit and upper specification limit).
- 1) and 2) case called unilateral specification limit, 3) cases referred to bilateral specification