

Australian Standard<sup>®</sup>

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**SAMPLING PROCEDURES AND  
TABLES FOR INSPECTION BY  
ATTRIBUTES**

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This Australian Standard was prepared by Committee QR/4, Statistical Quality Procedures. It was approved on behalf of the Council of the Standards Association of Australia on 4 January 1988 and published on 15 April 1988.

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The following interests are represented on Committee QR/4:

Australian Organization for Quality Control  
Bureau of Steel Manufacturers of Australia  
Confederation of Australian Industry  
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Department of Primary Industry  
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AS 1199—1988

Australian Standard<sup>®</sup>

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## PREFACE

This Standard was prepared by the Association's Committee on Statistical Quality Procedures to supersede AS 1199—1972. AS 1199—1972 was based to a large extent on the ABCA-ARMY-STD-105A prepared by a working group representing the military services of the US, the UK and Canada, and on the US, UK, Canadian and Australian versions of that Standard published as MIL-STD-105D, DEF-131-A, CA-C-115, and DEF(AUST)165, respectively.

The Australian Standard differed from the ABCA-ARMY-STD in that the definitions of terms given were in accord with AS 1057—1972, *Glossary of terms relating to quality control*. The appendix on sequential sampling given in the British Defence Specification DEF-131-A had been added, and a further appendix was included which gave tables relating to the occurrence of no defectives in a sample.

This Standard contains essentially the same material as AS 1199—1972, but with typographical changes. Editorial changes are confined to the revision of some definitions and clarification of some clauses.

For convenience of publication, Tables 1 to 10-S have been taken from ISO/DIS 2859/1, however, wherever the decimal comma appears in these tables it should be replaced by the decimal point.

A major revision, however, is the substitution of the words 'nonconformity' and 'nonconforming item', for the words 'defect' and 'defective' used in the 1972 edition. This is in line with ISO policy of using 'nonconformity' to denote a departure from specification, as opposed to 'defect' denoting the inability to satisfy normal usage requirements. To avoid any conflict with the definitions of AS 1057—1985, *Quality assurance and quality control glossary of terms*, this Standard does not use the words 'defect' or 'defective'.

Most users of this Standard will find it sufficiently descriptive to stand on its own. However, more guidance in its theory and application is available in AS 1399—1973 (under revision) *Guide to AS 1199*.

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## STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard

## SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This Standard establishes sampling plans and procedures for inspection by attributes.

The main sampling plans covered are single, double and multiple, but provision is also made for sequential sampling plans in Appendix A.

**1.2 APPLICATION.** The sampling plans are applicable to inspection of the following:

- End items
- Components and raw materials
- Operations
- Materials in process
- Supplies in storage
- Maintenance operations
- Data or records
- Administrative procedures.

A characteristic feature of these sampling plans is the switching procedure, which permits reduced inspection on processes of demonstrated high quality and requires tightened inspection on processes of demonstrated lesser quality. In some cases a user may feel the need to reduce inspection effort to even less than is provided by AS 1199—particularly with respect to suppliers of exceptionally and consistently high quality products. In such cases the user is advised to consult ISO Standard 2859/3, Sampling procedures for inspection by attributes, Part 3: Skip lot sampling plan.

The sampling plans and procedures are intended to be used primarily for a continuing series of batches or lots. They may also be used for the inspection of isolated batches or lots, but, the user is cautioned then to consult the operating characteristic curves to find a plan which will yield the desired protection (see Clause 10.5).

If no operating characteristic provides a satisfactory plan, the user is advised to consult ISO/2859/2—1985, sampling procedures for inspection by attributes, Part 2: Sampling plans indexed by limiting quality (LQ) for isolated lot inspection.

When specified by the responsible authority, this Standard shall be called up in the specification, contract, inspection instructions, or other documents, and the provisions in the Standard shall apply.

The responsible authority shall be nominated in one of the above documents.

**1.3 REFERENCED DOCUMENTS.** The following Standards are referred to in this Standard:

- |        |   |
|--------|---|
| AS     |   |
| 1057   | Quality assurance and quality control—Glossary of terms   |
| 1399   | Guide to AS 1199  |
| ISO    |   |
| 2859/2 | Sampling procedures for inspection by attributes, Part 2: Sampling plans indexed by limiting quality (LQ) for isolated lot inspection |
| 2859/3 | Sampling procedure for inspection by attributes, Part 3: Skip lot sampling plan.  |

**1.4 DEFINITIONS.** For the purpose of this Standard the definitions in AS 1057 and the following apply:

**1.4.1 Inspection**—the activity of measuring, testing or otherwise examining goods and services (including, when appropriate, raw materials, components and intermediate assemblies) for determining conformity with the specified requirements.

**1.4.2 Attribute**—a characteristic which is appraised in terms of whether it does or does not meet (e.g. go or no-go) a given requirement.

**1.4.3 Inspection by attributes**—inspection wherein the item or unit of product is either classified simply as conforming or nonconforming, or the number of nonconformities in the item is counted, with respect to a given requirement or set of requirements.

**1.4.4 Item or unit of product**—an object or a defined quantity of goods and services on which an observation or a measurement may be made.

**1.4.5 Responsible authority**—the consumer or the contracting authority or a person authorized by them, to act in all matters related to the assurance of quality in relation to the supply of goods and services.