



Standard Practice for Sampling a Stream of Product by Variables Indexed by AQL¹

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1. Scope

1.1 *Purpose*—This practice establishes lot or batch sampling plans and procedures for inspection by variables using MIL-STD-414 as a basis for sampling a steady stream of lots indexed by AQL.

1.2 This practice provides the sampling plans of MIL-STD-414 in ASTM format for use by ASTM committees and others. It recognizes the continuing usage of MIL-STD-414 in industries supported by ASTM. Most of the original text in MIL-STD-414 is preserved in Sections 6 – 9 of this practice.

1.3 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

E456 Terminology Relating to Quality and Statistics

E2234 Practice for Sampling a Stream of Product by Attributes Indexed by AQL

E2586 Practice for Calculating and Using Basic Statistics

2.2 Other Standards:³

MIL-STD-414 Sampling Procedures and Tables for Inspection by Variables for Percent Defective

MIL-STD-105E Sampling Procedures and Tables for In-

spection by Attributes

3. Terminology

3.1 Definitions:

3.1.1 For a more extensive list of terms in E11 standards, see Terminology E456.

3.1.2 *acceptance quality limit (AQL), n*—quality limit that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling. **E2234**

3.1.2.1 *Discussion*—This definition supersedes that given in MIL-STD-105E and MIL-STD-414.

3.1.3 *classification of defects, n*—the enumeration of possible defects of the unit of product classified according to their seriousness, that is, critical, major, or minor defect. **E2234**

3.1.4 *critical defect, n*—a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product, or a defect that judgment and experience indicate is likely to prevent performance of the function of a major end item. **E2234**

3.1.5 *defect, n*—any nonconformance of the unit of product with specified requirements. **E2234**

3.1.6 *inspection, n*—the process of measuring, examining, testing, or otherwise comparing the unit of product with the requirements. **E2234**

3.1.7 *inspection by variables, n*—inspection wherein the unit of product is measured on a continuous scale with respect to a given requirement or set of requirements.

3.1.8 *inspection lot, n*—a collection of units of product produced under conditions that are considered uniform and from which a sample is drawn and inspected. **E2234**

3.1.9 *major defect, n*—a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose. **E2234**

3.1.10 *minor defect, n*—a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit. **E2234**

¹ This practice is under the jurisdiction of ASTM Committee E11 on Quality and Statistics and is the direct responsibility of Subcommittee E11.30 on Statistical Quality Control.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, http://dodssp.daps.dla.mil.