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SENSITIVE**

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



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DEPARTMENT OF DEFENSE
Washington, DC 20301

SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES

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FOREWORD

This publication provides sampling procedures and reference tables for use in planning and conducting inspection by attributes. The sampling concept is based on the probabilistic recurrence of events when a series of lots or batches are produced in a stable environment.

This publication should be used to guide the user in the development of an inspection strategy that provides a cost effective approach to attaining confidence in product compliance with contractual technical requirements. The user is warned of the assumed risks relative to the chosen sample size and AQL.

Military specifications should not contain requirements for use of specific sampling plans, nor should they provide AQL's or LTPD's as a requirement.

Sampling plans for continuous, rather than lot inspection, are contained in MIL-STD-1235, "Single and Multi-Level Continuous Sampling Procedures and Tables for Inspection by Attributes".

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SAMPLING PROCEDURES AND TABLES
FOR INSPECTION BY ATTRIBUTES

1. SCOPE

1.1 Purpose. This publication establishes lot or batch sampling plans and procedures for inspection by attributes. This publication shall not be interpreted to supercede or conflict with any contractual requirements. The words "accept", "acceptance", "acceptable", etc, refer only to the contractor's use of the sampling plans contained in this standard and do not imply an agreement by the Government to accept any product. Determination of acceptability by the Government shall be as described in contractual documents. The sampling plans described in this standard are applicable to AQL's of .01 percent or higher and are therefore not suitable for applications where quality levels in the defective parts per million range can be realized.

1.2 Application. Sampling plans designated in this publication are applicable, but not limited, to inspection of the following:

- a. End items.
- b. Components and raw materials.
- c. Operations or services.
- d. Materials in process.
- e. Supplies in storage.
- f. Maintenance operations.
- g. Data or records.
- h. Administrative procedures.

These plans are intended primarily to be used for a continuing series of lots or batches. The plans may also be used for the inspection of isolated lots or batches, but, in this latter case, the user is cautioned to consult the operating characteristic curves to find a plan which will yield the desired protection (See 4.11).

2. REFERENCED DOCUMENTS

2.1 Not applicable.

3. DEFINITIONS

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3.1 Acceptable Quality Level (AQL). When a continuous series of lots is considered, the AQL is the quality level which, for the purposes of sampling inspection, is the limit of a satisfactory process average (See 3.19).

NOTE: A sampling plan and an AQL are chosen in accordance with the risk assumed. Use of a value of AQL for a certain defect or group of defects indicates that the sampling plan will accept the great majority of the lots or batches provided the process average level of percent defective (or defects per hundred units) in these lots or batches be no greater than the designated value of AQL. Thus, the AQL is a designated value of percent defective (or defects per hundred units) for which lots will be accepted most of the time by the sampling procedure being used. The sampling plans provided herein are so arranged that the probability of acceptance at the designated AQL value depends upon the sample size, being generally higher for large samples than for small ones, for a given AQL. The AQL alone does not identify the chances of accepting or rejecting individual lots or batches but more directly relates to what might be expected from a series of lots or batches, provided the steps indicated in this publication are taken. It is necessary to refer to the operating characteristic curve of the plan to determine the relative risks.

3.2 Average Outgoing Quality (AOQ). For a particular process average, the AOQ is the average quality of outgoing product including all accepted lots or batches, plus all rejected lots or batches after the rejected lots or batches have been effectively 100 percent inspected and all defectives replaced by non-defectives.

3.3 Average Outgoing Quality Limit (AOQL). The AOQL is the maximum AOQ for a given acceptance sampling plan. Factors for computing AOQL values are given in Table V-A for each of the single sampling plans for normal inspection and in Table V-B for each of the single sampling plans for tightened inspection.

3.4 Classification of Defects. A classification of defects is the enumeration of possible defects of the unit of product classified according to their seriousness.

3.5 Critical Defect. A critical defect is a defect that judgement and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product, or a defect that judgement and experience indicate is likely to prevent performance of the tactical function of a major end item such as a ship, aircraft, tank, missile, or space vehicle.

3.6 Critical Defective. A critical defective is a unit of product which contains one or more critical defects and may also contain major and/or minor defects.

3.7 Defect. A defect is any nonconformance of the unit of product with specified requirements.

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3.8 Defective. A defective is a unit of product which contains one or more defects.

3.9 Defects per Hundred Units. The number of defects per hundred units of any given quantity of units of product is one hundred times the number of defects contained therein (one or more defects being possible in any unit of product) divided by the total number of units of product, i.e.:

$$\text{Defects per hundred units} = \frac{\text{Number of defects} \times 100}{\text{Number of units inspected}}$$

3.10 Inspection. Inspection is the process of measuring, examining, testing, or otherwise comparing the unit of product with the requirements.

3.11 Inspection by Attributes. Inspection by attributes is inspection whereby either the unit of product is classified simply as defective or non-defective, or the number of defects in the unit of product is counted, with respect to a given requirement or set of requirements.

3.12 Lot or Batch. The term lot or batch shall mean "inspection lot" or "inspection batch", i.e., a collection of units of product from which a sample is to be drawn and inspected and may differ from a collection of units designated as a lot or batch for other purposes (e.g., production, shipment, etc.).

3.13 Lot or Batch Size. The lot or batch size is the number of units of product in a lot or batch.

3.14 Major Defect. A major defect is 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.

3.15 Major Defective. A major defective is a unit of product which contains one or more major defects, and may also contain minor defects but contains no critical defect.

3.16 Minor Defect. A minor defect is 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.

3.17 Minor Defective. A minor defective is a unit of product which contains one or more minor defects but contains no critical or major defect.

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3.18 Percent Defective. The percent defective of any given quantity of units of product is one hundred times the number of defective units of product contained therein divided by the total number of units of product, i.e.:

$$\text{Percent Defective} = \frac{\text{Number of defectives} \times 100}{\text{Number of units inspected}}$$

3.19 Process Average. The process average is the average percent defective or average number of defects per hundred units (whichever is applicable) of product submitted by the supplier for original inspection. Original inspection is the first inspection of a particular quantity of product as distinguished from the inspection of product which has been resubmitted after prior rejection.

3.20 Sample. A sample consists of one or more units of product drawn from a lot or batch, the units of the sample being selected at random without regard to their quality. The number of units of product in the sample is the sample size.

3.21 Sample Size Code Letter. The sample size code letter is a device used along with the AQL for locating a sampling plan on a table of sampling plans.

3.22 Sampling Plan. A sampling plan indicates the number of units of product from each lot or batch which are to be inspected (sample size or series of sample sizes) and the criteria for determining the acceptability of the lot or batch (acceptance and rejection numbers).

3.23 Unit of Product. The unit of product is the thing inspected in order to determine its classification as defective or non-defective or to count the number of defects. It may be a single article, a pair, a set, a length, an area, an operation, a volume, a component of an end product, or the end product itself. The unit of product may or may not be the same as the unit of purchase, supply, production, or shipment.

4. GENERAL REQUIREMENTS

4.1 Written Procedures. Written procedures are ordinarily developed and made available for the Government representative's review, upon request. When the written procedures indicate use of this standard, they shall comply with the requirements of this standard and reference appropriate parts as necessary.

4.2 Nonconformance. The extent of nonconformance of product shall be expressed either in terms of percent defective or in terms of defects per hundred units.

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4.3 Formation and Identification of Lots or Batches. The product shall be assembled into identifiable lots, sublots, batches, or in such other manner as may be prescribed. Each lot or batch shall, as far as is practicable, consist of units of product of a single type, grade, class, size, and composition, manufactured under essentially the same conditions, and at essentially the same time. The lots or batches shall be identified by the contractor and shall be kept intact in adequate and suitable storage space.

4.4 AQL.

4.4.1 AQL Use. The AQL, together with the Sample Size Code Letter, is used for indexing the sampling plans provided herein.

4.4.2 Limitation. The selection or use of an AQL shall not imply that the contractor has the right to supply any defective unit of product.

4.4.3 Choosing AQLs. Different AQLs may be chosen for groups of defects considered collectively, or for individual defects. An AQL for a group of defects may be chosen in addition to AQLs for individual defects, or subgroups, within that group. AQL values of 10.0 or less may be expressed either in percent defective or in defects per hundred units; those over 10.0 shall be expressed in defects per hundred units only.

4.5 Sampling.

4.5.1 Representative (Stratified) Sampling. When appropriate, the number of units in the sample shall be selected in proportion to the size of sublots or sub-batches, or parts of the lot or batch, identified by some rational criterion. When representative sampling is used, the units from each subplot, sub-batch or part of the lot or batch shall be selected at random.

4.5.2 Time of Sampling. A sample may be drawn after all the units comprising the lot or batch have been assembled, or sample units may be drawn during assembly of the lot or batch, in which case the size of the lot or batch will be determined before any sample units are drawn. If the sample units are drawn during assembly of the lot or batch, and if the rejection number is reached before the lot is completed, that portion of the lot already completed shall be rejected. The cause of the defective product shall be determined and corrective action taken, after which a new lot or batch shall be begun.

4.5.3 Double or Multiple Sampling. When double or multiple sampling is to be used, each sample shall be selected over the entire lot or batch.

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4.6 Inspection Procedures. Normal inspection will be used at the start of inspection. Normal, tightened or reduced inspection shall continue unchanged for each class of defects or defectives on successive lots or batches except where the switching procedures given below require change. The switching procedures shall be applied to each class of defects or defectives independently.

4.7 Switching Procedures.

4.7.1 Normal to Tightened. When normal inspection is in effect, tightened inspection shall be instituted when 2 out of 2, 3, 4, or 5 consecutive lots or batches have been rejected on original inspection (i.e., ignoring resubmitted lots or batches for this procedure).

4.7.2 Tightened to Normal. When tightened inspection is in effect, normal inspection shall be instituted when 5 consecutive lots or batches have been considered acceptable on original inspection.

4.7.3 Normal to Reduced. When normal inspection is in effect, reduced inspection shall be instituted provided that all of the following conditions are satisfied:

a. The preceding 10 lots or batches (or more, as indicated by the note to Table VIII) have been on normal inspection and all have been accepted on original inspection; and

b. The total number of defectives (or defects) in the samples from the preceding 10 lots or batches (or such other number as was used for condition "a" above) is equal to or less than the applicable number given in Table VIII. If double or multiple sampling is in use, all samples inspected should be included, not "first" samples only; and

c. Production is at a steady rate; and

d. Reduced inspection is considered desirable.

4.7.4 Reduced to Normal. When reduced inspection is in effect, normal inspection shall be instituted if any of the following occur on original inspection:

a. A lot or batch is rejected; or

b. A lot or batch is considered acceptable under the procedures of 4.10.1.4, or

c. Production becomes irregular or delayed; or

d. Other conditions warrant that normal inspection shall be instituted.

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4.8 Discontinuation of Inspection. If the cumulative number of lots not accepted in a sequence of consecutive lots on original tightened inspection reaches five, the acceptance procedures of this standard shall be discontinued. Inspection under the provisions of this standard shall not be resumed until corrective action has been taken. Tightened inspection shall then be used as if 4.7.1 had been invoked.

4.9 Sampling Plans.

4.9.1 Inspection Level. The inspection level determines the relationship between the lot or batch size and the sample size. The inspection level to be used for any particular requirement will be as prescribed by the contractor's written procedures. Three inspection levels: I, II, and III, are given in Table I for general use (see 4.1). Normally, Inspection Level II is used. However, Inspection Level I may be used when less discrimination is needed, or Level III may be used for greater discrimination. Four additional special levels: S-1, S-2, S-3, and S-4, are given in the same table and may be used where relatively small sample sizes are necessary and large sampling risks can or must be tolerated.

NOTE: In the selection of inspection levels S-1 to S-4, care must be exercised to avoid AQLs inconsistent with these inspection levels. In other words, the purpose of the special inspection levels is to keep samples small when necessary. For instance, the code letters under S-1 go no further than D, equivalent to a single sample of size 8, but it is of no use to choose S-1 if the AQL is 0.10 percent for which the minimum sample is 125.

4.9.2 Code Letters. Sample sizes are designated by code letters. Table I shall be used to find the applicable code letter for the particular lot or batch size and the prescribed inspection level.

4.9.3 Obtaining Sampling Plan. The AQL and the code letter shall be used to obtain the sampling plan from Tables II, III, or IV. When no sampling plan is available for a given combination of AQL and code letter, the tables direct the user to a different letter. The sample size to be used is given by the new code letter, not by the original letter. If this procedure leads to different sample sizes for different classes of defects, the code letter corresponding to the largest sample size derived may be used for all classes of defects. As an alternative to a single sampling plan with an acceptance number of 0, the plan with an acceptance number of 1 with its correspondingly larger sample size for a designated AQL (where available), may be used.

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4.9.4 Types of Sampling Plans. Three types of sampling plans: Single, Double, and Multiple, are given in Tables II, III, and IV, respectively. When several types of plans are available for a given AQL and code letter, any one may be used. A decision as to type of plan, either single, double, or multiple, when available for a given AQL and code letter, will usually be based upon the comparison between the administrative difficulty and the average sample sizes of the available plans. The average sample size of multiple plans is less than for double (except in the case corresponding to single acceptance number 1) and both of these are always less than a single sample size (see Table IX). Usually the administrative difficulty for single sampling and the cost per unit of the sample are less than for double or multiple.

4.10 Determination of Acceptability.

4.10.1 Percent Defective Inspection. To determine acceptability of a lot or batch under percent defective inspection, the applicable sampling plan shall be used in accordance with 4.10.1.1, 4.10.1.2, 4.10.1.3, and 4.10.1.4.

4.10.1.1 Single Sampling Plan. The number of sample units inspected shall be equal to the sample size given by the plan. If the number of defectives found in the sample is equal to or less than the acceptance number, the lot or batch shall be considered acceptable. If the number of defectives is equal to or greater than the rejection number, the lot or batch shall be rejected.

4.10.1.2 Double Sampling Plan. A number of sample units equal to the first sample size given by the plan shall be inspected. If the number of defectives found in the first sample is equal to or less than the first acceptance number, the lot or batch shall be considered acceptable. If the number of defectives found in the first sample is equal to or greater than the first rejection number, the lot or batch shall be rejected. If the number of defectives found in the first sample is between the first acceptance and rejection numbers, a second sample of the same size shall be inspected. The number of defectives found in the first and second samples shall be accumulated. If the cumulative number of defectives is equal to or less than the second acceptance number, the lot or batch shall be considered acceptable. If the cumulative number of defectives is equal to or greater than the second rejection number, the lot or batch shall be rejected.

4.10.1.3 Multiple Sample Plan. Under multiple sampling, the procedure shall be similar to that specified in 4.10.1.2, except that the number of successive samples required to reach a decision may be as many as seven.

4.10.1.4 Special Procedure for Reduced Inspection. Under reduced inspection, the sampling procedure may terminate without either acceptance or rejection criteria having been met. In these circumstances, the lot or batch will be considered acceptable, but normal inspection will be reinstated starting with the next lot or batch (see 4.7.4.b).

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4.10.2 Defects per Hundred Units Inspection. To determine the acceptability of a lot or batch under defects per hundred units inspection, the procedure specified for percent defective inspection above shall be used, except that the word "defects" shall be substituted for "defectives".

4.11 Limiting Quality Protection. The sampling plans and associated procedures given in this publication were designed for use where the units of product are produced in a continuing series of lots or batches over a period of time. However, if the lot or batch is of an isolated nature, it is desirable to limit the selection of sampling plans to those, associated with a designated AQL value, that provide not less than a specified limiting quality protection. Sampling plans for this purpose can be selected by choosing a Limiting Quality (LQ) and a consumer's risk to be associated with it. Tables VI and VII give values of LQ for the commonly used consumer's risks of 10 percent and 5 percent respectively. If a different value of consumer's risk is required, the O.C. curves and their tabulated values may be used. The concept of LQ may also be useful in specifying the AQL and Inspection Levels for a series of lots or batches, thus fixing minimum sample size where there is some reason for avoiding (with more than a given consumer's risk) more than a limiting proportion of defectives (or defects) in any single lot or batch.

4.12 Curves.

4.12.1 Operating Characteristic Curves. The operating characteristic curves for normal inspection, shown in Table X, indicate the percentage of lots or batches which may be expected to be accepted under the various sampling plans for a given process quality. The curves shown are for single sampling; curves for double and multiple sampling are matched as closely as practicable. The O.C. curves shown for AQLs greater than 10.0 are based on the Poisson distribution and are applicable for defects per hundred units inspection; those for AQLs of 10.0 or less and sample sizes of 80 or less are based on the binomial distribution and are applicable for percent defective inspection; those for AQLs of 10.0 or less and sample sizes larger than 80 are based the Poisson distribution and are applicable either for defects per hundred units inspection, or for percent defective inspection (the Poisson distribution being an adequate approximation to the binomial distribution under these conditions). Tabulated values, corresponding to selected values or probabilities of acceptance (P_a , in percent) are given for each of the curves shown, and, in addition, for tightened inspection, and for defects per hundred units for AQLs of 10.0 or less and sample sizes of 80 or less.

4.12.2 Average Sample Size Curves. Average sample size curves for double and multiple sampling are in Table IX. These show the average sample sizes which may be expected to occur under the various sampling plans for given levels of process quality. The curves assume no curtailment of inspection and are approximate to the extent that they are based upon the Poisson distribution, and that the sample sizes for double and multiple sampling are assumed to be $0.631n$ and $0.25n$ respectively, where n is the equivalent sample size.

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SECTION 5
TABLES AND CURVES

TABLE I—Sample size code letters

(see 4.9.1 and 4.9.2)

Lot or batch size	Special inspection levels				General inspection levels		
	S-1	S-2	S-3	S-4	I	II	III
2 to 8	A	A	A	A	A	A	B
9 to 15	A	A	A	A	A	B	C
16 to 25	A	A	B	B	B	C	D
26 to 50	A	B	B	C	C	D	E
51 to 90	B	B	C	C	C	E	F
91 to 150	B	B	C	D	D	F	G
151 to 280	B	C	D	E	E	G	H
281 to 500	B	C	D	E	F	H	J
501 to 1200	C	C	E	F	G	J	K
1201 to 3200	C	D	E	G	H	K	L
3201 to 10000	C	D	F	G	J	L	M
10001 to 35000	C	D	F	H	K	M	N
35001 to 150000	D	E	G	J	L	N	P
150001 to 500000	D	E	G	J	M	P	Q
500001 and over	D	E	H	K	N	Q	R

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TABLE II-A—Single sampling plans for normal inspection (Master table)

(see 4.9.3 and 4.9.4)

Sample size code letter		Acceptable Quality Levels (normal inspection)																											
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	40	65	100	150	250	400	650	1000												
Sample size	A	→																											
	B	→																											
	C	→																											
	D	→																											
E	F	→																											
	G	→																											
	H	→																											
	J	→																											
K	L	→																											
	M	→																											
	N	→																											
	P	→																											
Q	R	→																											
	S	→																											
	T	→																											
	U	→																											
V	W	→																											
	X	→																											
	Y	→																											
	Z	→																											
AA	AB	→																											
	AC	→																											
	AD	→																											
	AE	→																											
AF	AG	→																											
	AH	→																											
	AI	→																											
	AJ	→																											
AK	AL	→																											
	AM	→																											
	AN	→																											
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AP	AQ	→																											
	AR	→																											
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Use first sampling plan below arrow. If sample size equals, or exceeds, lot or batch size, do 100 percent inspection.

Use first sampling plan above arrow.

Acceptance number.

Rejection number.

SINGLE
NORMAL

TABLE 11-B—Single sampling plans for tightened inspection (Master table)

(see 4.9.3 and 4.9.4)

Sample size code letter	Acceptable Quality Levels (tightened inspection)																		1000
	0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	
A	2	3	5	8	13	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	10000
B	3	5	8	13	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500
C	5	8	13	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000
D	8	13	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500
E	13	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000
F	20	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000
G	32	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000
H	50	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000
I	80	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000
J	125	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000
K	200	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000
L	315	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000
M	500	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000
N	800	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000	3150000
P	1250	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000	3150000	5000000
Q	2000	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000	3150000	5000000	8000000
R	3150	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000	3150000	5000000	8000000	12500000
S	5000	8000	12500	20000	31500	50000	80000	125000	200000	315000	500000	800000	1250000	2000000	3150000	5000000	8000000	12500000	20000000

Use first sampling plan below arrow. If sample size equals or exceeds, for or both size, in 100 percent inspection.

Use first sampling plan above arrow.

Acceptance number.

Rejection number.

MIL-STD-105E

TABLE II-C—Single sampling plans for reduced inspection (Master table)
(see 4.9.3 and 4.9.4)

Sample size code letter		Acceptable Quality Levels (reduced inspection) ¹																										
		0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000						
A	2	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
B	2	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
C	2	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
D	3	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
E	5	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
F	8	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
G	13	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
H	20	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
J	32	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
K	50	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
L	80	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
M	125	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
N	200	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
P	315	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
Q	500	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	
R	800	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	

Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection.

Use first sampling plan above arrow.

Ac = Acceptance number.

Re = Rejection number.

If the acceptance number has been exceeded, but the rejection number has not been reached, accept the lot, but reinspect normal inspection (see 4.10.1.4).

(see 4.9.3 and 4.9.4)

- ☐ Use first sampling place for error. If sample size equals or exceeds first two levels, use (100 percent inspection).
- ☐ Use first sampling place above error
- Ac Acceptance number
- Re Rejection number
- ☐ Use corresponding single sampling plan (see chart). If not charted, use double sampling plan for lot, above acceptable

**DOUBLE
NORMAL**

MIL-STD-105E

TABLE III-B—Double sampling plans for tightened inspection (Master Table)
(see 4.9.3 and 4.9.4)

Sample size code letter	Sample size	Cumulative sample size	Acceptable quality levels (tightened inspection)																65	100	150	250	500	1000
			0.010	0.015	0.025	0.040	0.063	0.100	0.150	0.250	0.400	0.630	1.00	1.60	2.50	4.00	6.30	10.0						
			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re						
A			→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	First Second	2 4	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
C	First Second	3 6	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
D	First Second	5 10	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
E	First Second	8 16	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
F	First Second	13 26	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
G	First Second	20 40	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
H	First Second	32 64	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
J	First Second	50 100	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
K	First Second	80 160	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
L	First Second	125 250	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
M	First Second	200 400	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
N	First Second	315 630	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
P	First Second	500 1000	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
Q	First Second	800 1600	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
R	First Second	1250 2500	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
S	First Second	2000 4000	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

→ Use first sampling plan below arrow. If sample size equals or exceeds the lot check size, do 100 percent inspection.

→ Use first sampling plan above arrow.

Ac Acceptance number

Re Rejection number

→ Use corresponding single sampling plan (or, alternatively, use double sampling plan below, where available).

**DOUBLE
TIGHTENED**

TABLE III-C—Double sampling plans for reduced inspection (Master table)

(see 4.9.3 and 4.9.4)

Sample size code letter	Sample size	Cont. lot size sample size	Acceptable Quality Levels (based on inspection)																										
			0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000						
A			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
B			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
C			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
D	First Second	2 4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
E	First Second	3 6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
F	First Second	5 10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
G	First Second	8 16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
H	First Second	13 26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
J	First Second	20 40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
K	First Second	32 64	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
L	First Second	50 100	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
M	First Second	80 160	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
N	First Second	125 250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
P	First Second	200 400	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
U	First Second	315 630	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
R	First Second	500 1000	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		

- * Use first sampling plan before arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection.
 * Use first sampling plan above arrow.
 * Acceptance number.
 * Rejection number.
 * Use corresponding single sampling plan for alternatively, use double sampling plan below, where available.
 * If, after the second sample, the acceptance number has been exceeded, but the rejection number has not been reached, except the lot, but not under normal inspection (see 4.10.1.4)

DOUBLE
REDUCED

TABLE IV-A—Multiple sampling plans for normal inspection (Master table)

(see 4.9.3 and 4.9.4)

[illegible]

as the first sampling plan for live stems for (c) to evaluation of cable on following page, when necessary, if sample also applies as records for each site, do 100 percent inspection.

[illegible]

1. The corresponding double sampling plan for $n=10$ is ascertained and plotted in this sample size.

**MULTIPLE
NORMAL**

TABLE IV-B—Multiple sampling plans for tightened inspection (Master table)

(see 4.9.3 and 4.9.4)

Acceptable Quality Levels (Right-tail Inspection)													
Sample size n	Sample size n	Sample size n	Acceptable Quality Levels (Right-tail Inspection)										
			0.010	0.015	0.025	0.040	0.050	0.075	0.10	0.15	0.25	0.40	
10	10	10	0	1	2	3	4	5	6	7	8	9	10
20	20	20	0	1	2	3	4	5	6	7	8	9	10
30	30	30	0	1	2	3	4	5	6	7	8	9	10
40	40	40	0	1	2	3	4	5	6	7	8	9	10
50	50	50	0	1	2	3	4	5	6	7	8	9	10
60	60	60	0	1	2	3	4	5	6	7	8	9	10
70	70	70	0	1	2	3	4	5	6	7	8	9	10
80	80	80	0	1	2	3	4	5	6	7	8	9	10
90	90	90	0	1	2	3	4	5	6	7	8	9	10
100	100	100	0	1	2	3	4	5	6	7	8	9	10
120	120	120	0	1	2	3	4	5	6	7	8	9	10
140	140	140	0	1	2	3	4	5	6	7	8	9	10
160	160	160	0	1	2	3	4	5	6	7	8	9	10
180	180	180	0	1	2	3	4	5	6	7	8	9	10
200	200	200	0	1	2	3	4	5	6	7	8	9	10
220	220	220	0	1	2	3	4	5	6	7	8	9	10
240	240	240	0	1	2	3	4	5	6	7	8	9	10
260	260	260	0	1	2	3	4	5	6	7	8	9	10
280	280	280	0	1	2	3	4	5	6	7	8	9	10
300	300	300	0	1	2	3	4	5	6	7	8	9	10
320	320	320	0	1	2	3	4	5	6	7	8	9	10
340	340	340	0	1	2	3	4	5	6	7	8	9	10
360	360	360	0	1	2	3	4	5	6	7	8	9	10
380	380	380	0	1	2	3	4	5	6	7	8	9	10
400	400	400	0	1	2	3	4	5	6	7	8	9	10
420	420	420	0	1	2	3	4	5	6	7	8	9	10
440	440	440	0	1	2	3	4	5	6	7	8	9	10
460	460	460	0	1	2	3	4	5	6	7	8	9	10
480	480	480	0	1	2	3	4	5	6	7	8	9	10
500	500	500	0	1	2	3	4	5	6	7	8	9	10
520	520	520	0	1	2	3	4	5	6	7	8	9	10
540	540	540	0	1	2	3	4	5	6	7	8	9	10
560	560	560	0	1	2	3	4	5	6	7	8	9	10
580	580	580	0	1	2	3	4	5	6	7	8	9	10
600	600	600	0	1	2	3	4	5	6	7	8	9	10

100 percent respect for

Use of the following information is not intended to be a substitute for professional advice. The information is provided for informational purposes only. The information is not intended to be a substitute for professional advice. The information is provided for informational purposes only.

Accepted manuscript to appear in JHEP

[illegible]

410 my best thinking about computer-aided

Use common sense and common sense is the only thing

THIS OFFICE HAS NO RECORD FOR THIS INDIVIDUAL

**MULTIPLE
TIGHTENED**

TABLE IV-B—Multiple sampling plans for tightened inspection (Master table)
(see 4.9.3 and 4.9.4)

Sample size code letter		Sample size	First sample size	Acceptable Quality Levels (tighter inspection)																Second sample size	Third sample size	Fourth sample size								
				0.010	0.025	0.040	0.060	0.080	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10				15	25	40	65	100	150	250	400
A	First	32	64	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	32	64	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	32	64	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	32	64	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	1	2	3	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	First	50	100	70	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	50	100	70	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	50	100	70	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	50	100	70	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	2	3	4	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
C	First	80	160	110	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	80	160	110	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	80	160	110	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	80	160	110	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	3	4	5	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
D	First	125	250	170	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	125	250	170	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	125	250	170	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	125	250	170	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	4	5	6	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
E	First	200	400	270	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	200	400	270	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	200	400	270	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	200	400	270	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	5	6	7	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
F	First	315	630	420	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	315	630	420	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	315	630	420	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	315	630	420	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	6	7	8	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
G	First	500	1000	670	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	500	1000	670	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	500	1000	670	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	500	1000	670	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	7	8	9	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
H	First	800	1600	1080	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	800	1600	1080	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	800	1600	1080	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	800	1600	1080	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	8	9	10	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
I	First	1250	2500	1720	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	1250	2500	1720	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	1250	2500	1720	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	1250	2500	1720	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Acceptance number	9	10	11	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

Use first sampling plan to the extent possible. If sample size equals or exceeds lot or batch size, do 100 percent inspection.
Use first sampling plan shown unless lot or batch size is greater than 1000, in which case use the second plan.
Acceptance number
Inspection number
Use second sampling plan for alternative, use multiple sampling plan later, when available.
Acceptance not permitted at this sample size.

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TABLE IV-C—Multiple sampling plans for reduced inspection (Master table)

(see 4.9.3 and 4.9.4)

			Acceptable Quality Levels (reduced inspection) ↓																							
Sample size code letter	Sample size	Com- mitive sample size	0.10	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000			
A			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
B			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
C			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
D			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
E			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
F	First	2	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
G	First	3	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
H	First	5	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
I	First	5	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
J	First	8	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
K	First	12	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		

Use first sampling plan below given (refer to continuation of table on following page, when necessary) If sample size equals, or exceeds lot or batch size, do 100 percent inspection.

Use first sampling plan above given

Acceptance number

Rejection number

Use corresponding single sampling plan for alternativity; use multiple sampling plan below, where available.

Use corresponding double sampling plan for alternativity; use multiple sampling plan below, where available.

Acceptance not permitted in this sample size.

If, after the first sample, the acceptance number has been exceeded, but the rejection number has not been reached, accept the lot but postpone second inspection (page 4, 10, 14)

MULTIPLE
REDUCED

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TABLE IV.C—Multiple sampling plans for reduced inspection (Master table)

(Continued)

(see 4.9.3 and 4.9.4)

		Acceptable Quality Levels (induced inspection)																										
Sample size code letter	Sample size	Com- plete sample size	0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
L	First	20	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	25	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	30	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	35	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	40	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	45	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	First	32	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	40	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	63	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	80	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	100	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	125	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
H	First	50	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	63	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	80	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	100	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	125	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	160	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	200	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
P	First	80	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	100	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	125	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	160	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	200	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	250	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	315	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
D	First	125	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	160	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	200	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	250	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	315	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	400	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	500	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
G	First	200	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Second	250	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Third	315	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fourth	400	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Fifth	500	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Sixth	630	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
	Seventh	800	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

(The first sampling plan below arrow. If sample also equals, or exceeds, lot or lot's size, do 100 percent inspection.)

* If the first sampling plan above arrow (refer to preceding page when necessary)
 Acceptance number
 Rejection number
 Acceptance and rejection numbers
 If, after the final sample, the acceptance number has been exceeded, but the rejection number has not, accept the lot, but initiate a second inspection (see 4.10.4)

MULTIPLE
REDUCED

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TABLE V-A — Average Outgoing Quality Limit Factors for Normal Inspection (Single sampling) *

(see 3.3)

Code Letter	Sample Size	Acceptable Quality Level																							
		0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000			
A	2																								
B	3																								
C	5																								
D	8																								
E	13																								
F	20																								
G	32																								
H	50																								
J	80																								
K	125																								
L	200																								
M	315																								
N	500																								
P	800																								
Q	1250																								
R	2000																								

* Notes: For the exact AOQL, the above values must be multiplied by (1 - $\frac{\text{Sample size}}{\text{Lot or Batch size}}$)

AOQL
NORMAL

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TABLE V.B—Average Outgoing Quality Limit Factors for Tightened Inspection (Single sampling)*

(see 3.3)

Code letter		Sample size	Assessable Quality Level																										
			0.010	0.015	0.025	0.040	0.063	0.10	0.15	0.25	0.40	0.63	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000	
A	2																												970
B	3																												1100
C	5																												
D	8																												
E	13																												
F	20																												
G	32																												
H	50																												
I	80																												
J	125																												
K	200																												
L	320																												
M	500																												
N	800																												
O	1250																												
P	2000																												
Q	3150																												
R	5000																												
S	11500																												

* Note: For the exact AOQL, the above values must be multiplied by $(1 - \frac{\text{Sample size}}{\text{Lot or Batch size}})$ (see 11.4)

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TABLE VI-A—Limiting Quality (in percent defective) for which $P_d = 10$ Percent
(for Normal Inspection, Single sampling)

(see 4.11)

Code letter		Sample size	Acceptable Quality Level														
			0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5
A	2	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	58	
B	3																
C	5																
D	8	0.18	0.20	0.27	0.33	0.46	0.59	0.77	1.0	1.4	2.3	3.5	4.0	5.6	9.0	14	23
E	13																
F	20																
G	32	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	58	
H	50																
J	80																
K	125	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	58	
L	200																
M	315																
N	500	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	58	
P	800																
Q	1250																
R	2000	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	58	

LQ (DEFECTIVES)
 10.0%

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TABLE VI-B—Limiting Quality (in defects per hundred units) for which $P_d = 10$ Percent
(for Normal Inspection, Single sampling)

(see 4.11)

Code letter	Sample size	Acceptable Quality Level																				
		0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
A	2									120				200	270	330	460	590	770	1000	1400	1900
B	3								77			130	180	220	310	390	510	670	940	1300	1800	
C	5							46			78	110	130	190	240	310	400	560	770	1100		
D	8							29		49	67	84	120	150	190	250	350	480	670			
E	13						18		30	41	51	71	91	120	160	220	300	410				
F	20					12		20	27	33	46	59	77	100	140							
G	32				7.2			12	17	21	29	37	48	63	88							
H	50						7.8	11	13	19	24	31	40	56								
J	80					4.9	6.7	8.4	12	15	19	25	35									
K	125				3.1	4.3	5.4	7.4	9.4	12	16	23										
L	200				2.7	3.3	4.6	5.9	7.7	10	14											
M	315				2.0	2.1	2.9	3.7	4.9	6.4	9.0											
N	500								4.0	5.6												
P	800								3.5													
Q	1250																					
	2000																					

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TABLE VII-A—Limiting Quality (in percent defective) for which $P_d = 5$ Percent
 (for Normal Inspection, Single sampling)

(see 4.11)

		Acceptable Quality Level															
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10
Code letter	Sample size																
	A	2															
	B	3															
C	5																
D	8																
E	13																
F	20																
G	32																
H	50																
J	80																
K	125																
L	200																
M	315																
N	500																
P	800																
Q	1250																
R	2000																

LQ (DEFECTIVES)
5.0%

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TABLE VII-B—Limiting Quality (in defects per hundred units) for which $P_a = 5$ Percent
(for Normal Inspection, Single sampling)

(see 4.11)

Code letter	Sample size	Acceptable Quality Level															
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10
A	2																
B	3																
C	5																
D	8																
E	13																
F	20																
G	32																
H	50																
J	80																
K	125																
L	200																
M	315																
N	500																
P	800																
Q	1250																
H	2000																

LQ (DEFECTS)
5%

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TABLE VIII—Limit Numbers for Reduced Inspection

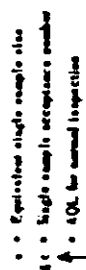
(see 4.7.3)

Number of sample units from lot or lots or batches	Acceptable Quality Level																	
	0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250
	0.010	0.015	0.025	0.040	0.065	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250
20 - 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 - 49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 - 79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80 - 129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 - 199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 - 319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
320 - 499	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500 - 799	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
800 - 1249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1250 - 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000 - 3149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3150 - 19999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20000 - 31499	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31500 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Deserve that the number of sample units from the lot or lots or batches is not sufficient for reduced inspection for this AQL. In this instance more than one lot or batches may be used for the calculation, provided that the lot or batches used are the most recent ones in sequence, that they have all been on normal inspection, and that none has been rejected while on original inspection.

LIMIT
NUMBERS

(see 4.12.2)



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TABLE X-A—Tables for sample size code letter: A

CHART A - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

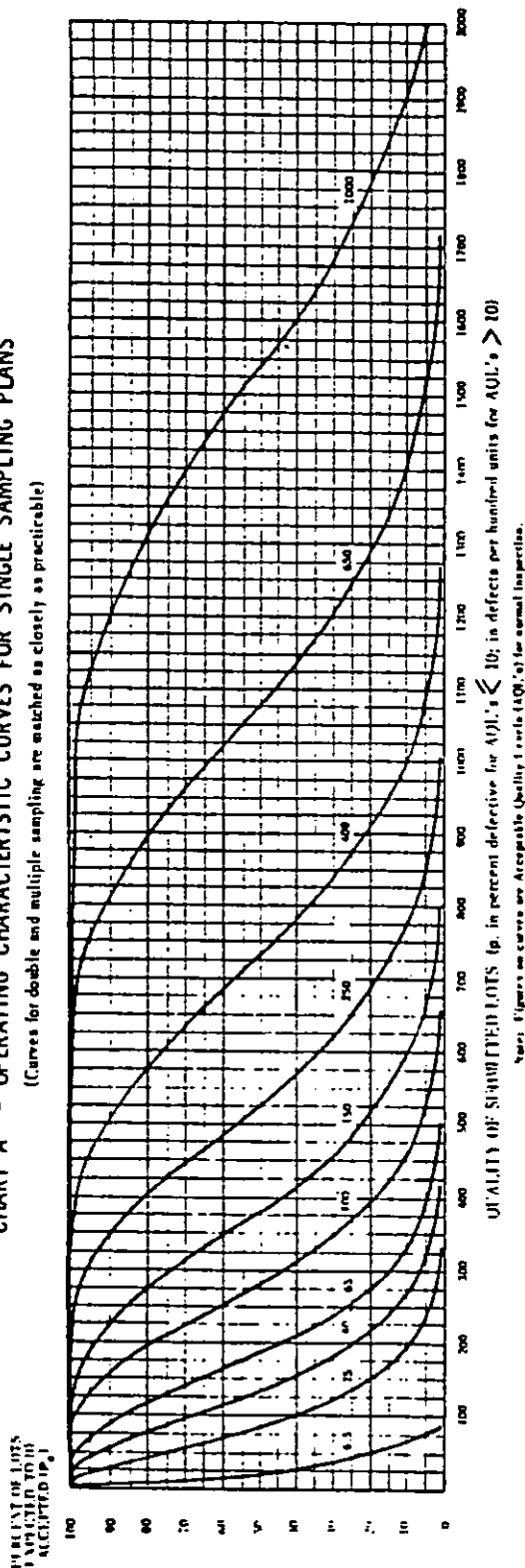


TABLE X-A-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _o	Acceptable Quality Levels (normal inspection)														
	6.5	25	40	65	100	150	250	400	650	1000	p (in defects per hundred units)				
99.0	0.501	7.41	21.8	41.2	89.3	145	175	239	305	374	517	629	859	977	1122
95.0	2.53	17.8	40.9	68.3	131	199	235	308	381	462	622	745	995	1122	1206
90.0	5.13	26.6	55.1	87.2	158	233	272	351	432	515	684	812	1073	1206	1354
75.0	11.4	48.1	86.4	127	211	298	342	431	521	612	795	934	1214	1354	1533
50.0	29.3	83.9	134	184	284	383	433	533	633	733	933	1083	1363	1533	1728
25.0	69.3	135	196	253	371	484	540	651	761	870	1087	1248	1568	1728	1916
10.0	115	194	266	334	464	569	650	770	889	1006	1238	1409	1748	1916	2015
5.0	150	237	315	388	526	657	722	848	972	1094	1335	1512	1862	2015	2270
1.0	230	332	420	502	655	800	870	1007	1141	1272	1529	1710	2088	2270	2500
	X	X	65	100	150	X	250	X	400	X	650	X	1000	X	X
	Acceptable Quality Levels (tightened inspection)														

Note: Binomial distribution used for percent defective comparisons. Entries for defects per hundred units.

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TABLE X-A-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: A

Type of sampling plan	Cumulative sample size	Acceptable Quality Levels (normal inspection)																	Cumulative sample size
		Less than 6.5	6.5	10	15	25	40	65	100	150	250	400	650	1000	1000				
		Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re			
Single	2	▽	0 1			1 2	2 3	3 4	5 6	7 8	9 10	11 12	13 14	15 16	18 19	21 22	27 28	31	2
Double		▽	•	Use code Letter D	Use code Letter C	Use code Letter B	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	
Multiple		▽	•																
		Less than 10	X	10	15	25	40	65	100	150	250	400	650	1000	X	1000	X	X	
Acceptable Quality Levels (tightened inspection)																			

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

• = Use single sampling plan above (or alternatively use code letter D).

(*) = Use single sampling (or alternatively use code letter D).

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TABLE X-B—Tables for sample size code letter: B

CHART B - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

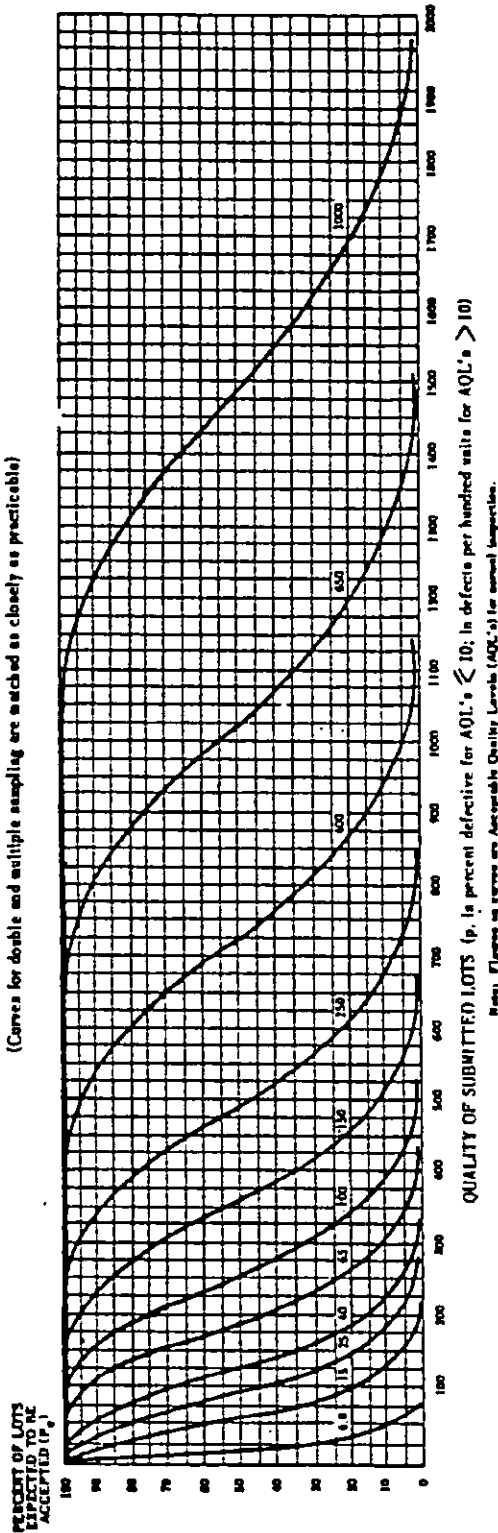


TABLE X-B-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _d	Acceptable Quality Levels (normal inspection)															
	p (in defects per hundred units)															
	4.0	6.5	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
99.0	0.334	0.335	4.97	14.5	27.4	59.5	96.9	117	159	203	249	345	419	572	651	1029
95.0	1.70	1.71	11.8	27.3	45.5	87.1	133	157	206	256	308	415	496	663	748	1152
90.0	3.45	3.51	17.7	36.7	58.2	105	155	181	234	288	343	456	541	716	804	1222
75.0	9.14	9.59	32.0	57.6	84.5	141	199	228	287	347	408	530	623	809	903	1344
50.0	20.6	23.1	55.9	89.1	122	189	256	289	356	422	489	622	722	922	1022	1489
25.0	37.0	46.2	89.8	131	170	247	323	360	434	507	580	724	832	1045	1152	1644
10.0	53.6	76.8	130	177	223	309	392	433	514	593	671	875	939	1165	1277	1793
5.0	63.2	99.9	158	210	258	350	438	481	565	648	730	890	1008	1241	1356	1886
1.0	78.5	154	221	280	335	437	533	580	671	761	848	1019	1115	1392	1513	2069
6.5	6.5	6.5	25	40	65	100	150	250	400	650	1000	1513	2069	2500	3000	4000

Note: Nominal illustration used for percent defective comparison. Figures for defects per hundred units.

TABLE X-B-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: B

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Type of sampling plan	Cumulative sample size	Acceptable Quality Levels (normal inspection)																				Cumulative sample size														
		Less than 4.0	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000																					
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re															
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re															
Single	3	▽	0	1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	27	28	30	31	41	42	44	45	3	
Double	2 4	▽	.		Use code Letter	0	2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	15	20	17	22	23	29	25	31	2
Multiple		▽	.		A D C	1	2	3	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	34	35	37	38	52	53	56	57	4	
		Less than 6.5	6.5	10	15	25	40	65	100	150	250	400	650	1000	X																					

Acceptable Quality Levels (tightened inspection)

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

. = Use single sampling plan above (or alternatively use code letter E)

++ = Use double sampling plan above (or alternatively use code letter D)

TABLE X-C—Tables for sample size code letter: C

CHART C - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

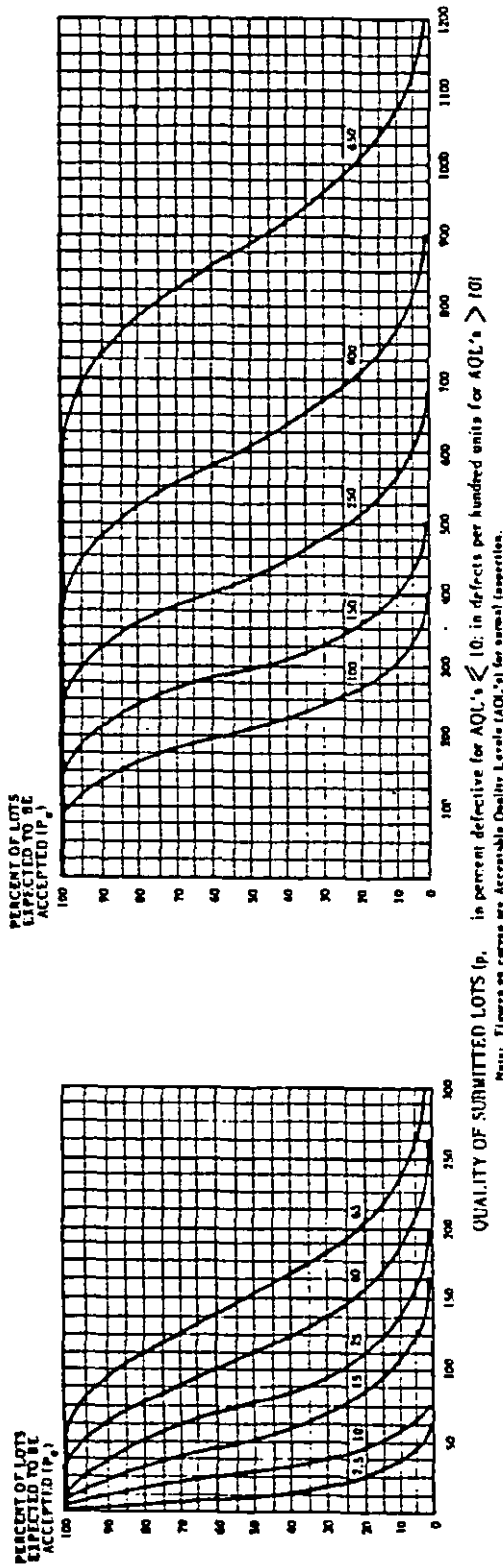


TABLE X-C-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

r.	Acceptable Quality Levels (normal inspection)																	
	2.5	10	2.5	10	15	25	40	65	100	150	250	400	650					
	p (in defects per hundred units)																	
p (in percent defective)																		
99.0	0.201	3.27	0.201	2.97	8.77	16.5	37.5	58.1	70.1	95.4	122	150	207	251	343	391	568	618
95.0	1.02	7.64	1.03	7.11	16.4	27.3	52.3	79.6	93.9	123	154	185	249	298	398	449	639	691
90.0	2.09	11.2	2.11	10.6	22.0	34.9	63.0	93.1	109	140	173	206	273	325	429	482	679	733
75.0	5.59	19.4	5.75	19.2	34.5	50.7	84.4	119	137	172	208	245	318	374	485	542	749	806
50.0	12.9	31.4	13.9	33.6	53.5	73.4	113	153	173	213	253	293	373	433	553	613	833	893
25.0	24.2	45.4	27.7	53.9	78.4	102	148	194	216	260	304	348	435	499	627	691	923	986
10.0	36.9	58.4	46.1	77.8	106	134	185	235	260	308	356	403	495	564	699	766	1010	1076
5.0	45.1	65.7	59.9	94.9	126	155	210	263	289	339	389	438	534	605	745	814	1064	1131
1.0	60.2	77.8	92.1	133	168	201	262	320	348	403	456	509	612	687	835	908	1171	1241
	4.0	X	4.0	15	25	40	65	X	100	X	150	X	250	X	400	X	650	X

Acceptable Quality Levels (tightened inspection)

Note: Binomial distribution used for percent defective computations; Poisson for defect to part headed table.

[illegible]

13 Use double sampling plan above (or alternatively use code letter D)

TABLE X-D—Tables for sample size letter: D

CHART D - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

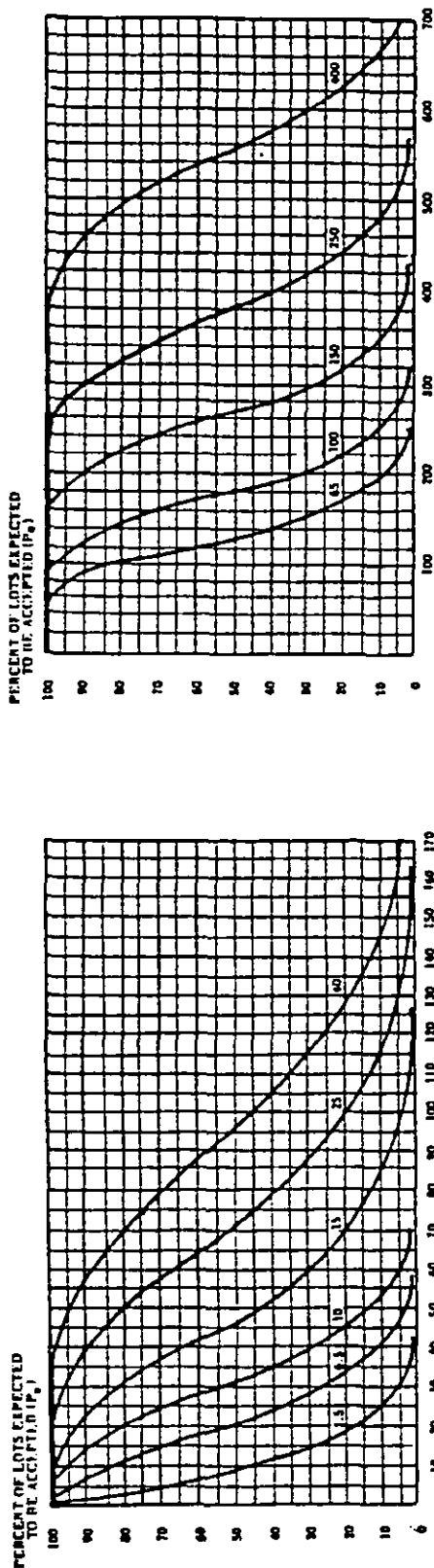


TABLE X-D-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _e	Acceptable Quality Levels (normal inspection)																		
	1.5	6.5	10	15.5	6.5	10	15	25	40	65	100	150	250	400					
	p (in percent defective)																		
	p (in defects per hundred units)																		
99.0	0.126	1.97	6.08	0.126	1.86	5.45	10.3	22.3	36.3	43.8	59.6	76.2	93.5	129	157	215	244	355	386
95.0	0.439	4.64	11.1	0.641	4.44	10.2	17.1	32.7	49.8	58.7	77.1	96.1	116	156	186	249	281	399	432
90.0	1.31	6.88	14.7	1.32	6.65	13.8	21.8	39.4	58.2	67.9	87.8	108	129	171	203	268	301	424	458
75.0	3.53	12.1	22.1	3.60	12.0	21.6	31.7	52.7	74.5	85.5	108	130	153	199	234	303	339	468	504
50.0	8.30	20.1	32.1	8.66	21.0	33.4	45.9	70.9	95.9	108	133	158	183	233	271	346	383	521	558
25.0	15.9	30.3	43.3	17.3	33.7	49.0	63.9	92.8	121	135	163	190	217	272	312	392	432	577	617
10.0	25.0	40.6	53.8	28.8	48.6	66.5	83.5	116	147	162	193	222	252	309	352	437	479	631	672
5.0	31.2	47.1	60.0	37.4	59.3	78.7	96.9	131	164	180	212	243	274	334	378	465	509	665	707
1.0	43.8	59.0	70.7	57.6	83.0	105	126	164	200	218	252	285	318	382	429	522	568	732	776
	2.5	10	X	2.5	10	15	25	40	X	65	X	100	X	150	X	250	X	400	X
	Acceptable Quality Levels (tightened inspection)																		

Notes: ① binomial distributions used for percent defective computations; ② values for defects per hundred units.

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TABLE X-D-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: D

Type of sampling plan	Con- lative sample size	Acceptable Quality Levels (normal inspection)																	Con- lative sample size
		Less than 1.5	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	Higher than 400			
		Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re			
Single	0	▽	0 1				1 2 2	3 3 4	5 6 7	8 8	9 10 11	12 13 14	15 18 19	21 22 27	28 30 31	41 42 44	45	0	
			Use																
			code Letter	Use code Letter															
Double	5	▽	•				0 2 0	3 1 4	2 5 3	7 3 7	5 9 6	10 7 11	14 16 15	20 17 22	23 29 25	31	5		
	10						1 2 3	4 6 5	6 7 8	9 11 12	13 15 16	18 19 23	24 26 27	34 35 37	38 52 53	56 57	10		
Multiple	2	▽	•				• 2 •	2 • 3 •	4 0 4	0 4 0	5 0 6	1 7 1	8 2 9	3 10 4	12 6 15	6 16	2		
	4						• 2 0	3 0 3	1 5 1	6 2 7	3 8 3	9 4 10	6 12 7	14 10 17	11 19 16	25 17 27	4		
	6						0 2 0	3 1 4	2 6 3	8 4 9	6 10 7	12 8 13	11 17 13	19 17 24	19 27 26	36 29 39	6		
	8						0 3 1	4 2 5	3 7 5	10 6 11	8 13 10	15 17 17	16 22 19	25 21 31	27 34 37	46 40 49	8		
	10						1 3 2	4 3 6	5 8 7	11 9 12	11 15 14	17 17 20	22 25 29	32 37 36	40 49 55	53 58	10		
	12						1 3 3	5 4 6	7 9 10	12 14 14	17 18 20	21 23 27	29 31 33	40 43 45	47 61 64	65 68	12		
	14						2 3 4	5 6 7	9 10 13	14 16 15	18 19 21	22 25 26	32 33 37	38 48 49	53 54 72	73 77 78	14		
		Less than 2.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	Higher than 400				
Acceptable Quality Levels (tightened inspection)																			

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

• = Use single sampling plan above (or alternatively use code letter G)

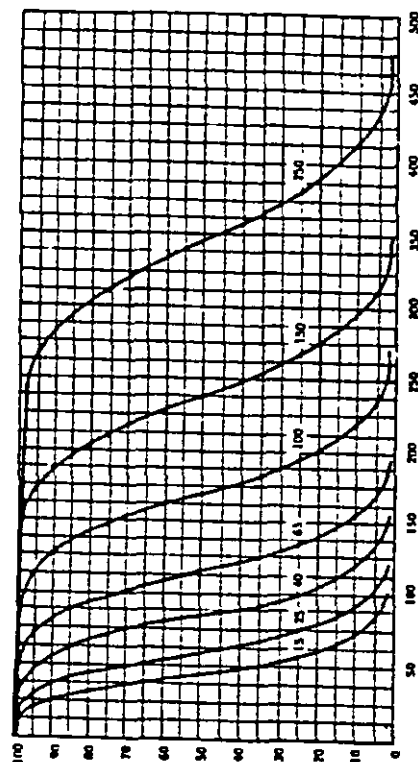
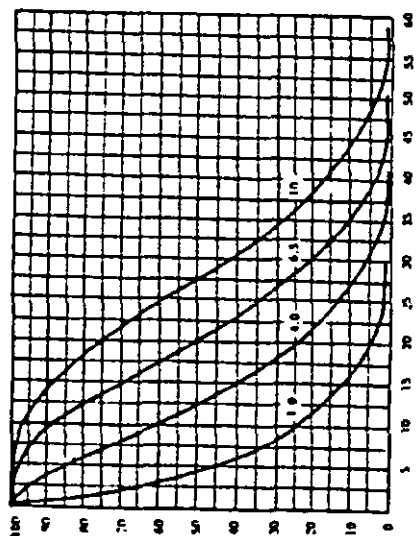
• = Acceptance not permitted at this sample size.

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TABLE X-E—Tables for sample size code letter: E

CHART E - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

PERCENT OF LOTS
ACCEPTED IN
INSPECTIONQUALITY OF SUBMITTED LOTS (p, in percent defective for AQL's ≤ 10 ; in defects per hundred units for AQL's > 10)

Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-E-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _o	Acceptable Quality Levels (normal inspection)																									Acceptable Quality Levels (tightened inspection)																																		
	p (in percent defective)										p (in defects per hundred units)															p (in percent defective)										p (in defects per hundred units)																								
	1.0	4.0	6.5	10	15	25	40	65	100	150	250	1.0	4.0	6.5	10	15	25	40	65	100	150	250	1.0	4.0	6.5	10	15	25	40	65	100	150	250	1.0	4.0	6.5	10	15	25	40	65	100	150	250																
99.0	0.077	1.18	3.58	6.75	11.3	0.0773	1.15	3.35	6.33	13.7	22.4	36.7	46.9	57.5	79.6	96.7	132	150	219	238	0.077	1.18	3.58	6.75	11.3	0.0773	1.15	3.35	6.33	13.7	22.4	36.7	46.9	57.5	79.6	96.7	132	150	219	238	0.077	1.18	3.58	6.75	11.3	0.0773	1.15	3.35	6.33	13.7	22.4	36.7	46.9	57.5	79.6	96.7	132	150	219	238
95.0	0.394	2.81	6.60	11.3	20.1	0.395	2.73	6.29	10.5	30.6	36.1	47.5	59.2	71.1	95.7	115	153	173	246	266	0.394	2.81	6.60	11.3	20.1	0.395	2.73	6.29	10.5	30.6	36.1	47.5	59.2	71.1	95.7	115	153	173	246	266	0.394	2.81	6.60	11.3	20.1	0.395	2.73	6.29	10.5	30.6	36.1	47.5	59.2	71.1	95.7	115	153	173	246	266
90.0	0.807	4.17	8.80	14.2	24.2	0.810	4.09	8.48	13.4	35.8	41.8	54.0	66.5	79.2	105	125	165	185	261	282	0.807	4.17	8.80	14.2	24.2	0.810	4.09	8.48	13.4	35.8	41.8	54.0	66.5	79.2	105	125	165	185	261	282	0.807	4.17	8.80	14.2	24.2	0.810	4.09	8.48	13.4	35.8	41.8	54.0	66.5	79.2	105	125	165	185	261	282
75.0	2.19	7.41	13.4	19.9	32.5	2.21	7.39	13.3	19.5	45.8	52.6	66.3	80.2	94.1	122	144	187	208	288	310	2.19	7.41	13.4	19.9	32.5	2.21	7.39	13.3	19.5	45.8	52.6	66.3	80.2	94.1	122	144	187	208	288	310	2.19	7.41	13.4	19.9	32.5	2.21	7.39	13.3	19.5	45.8	52.6	66.3	80.2	94.1	122	144	187	208	288	310
50.0	5.19	12.6	20.0	27.5	43.6	5.33	12.9	20.6	28.2	59.0	66.7	82.1	97.4	113	144	167	213	236	321	344	5.19	12.6	20.0	27.5	43.6	5.33	12.9	20.6	28.2	59.0	66.7	82.1	97.4	113	144	167	213	236	321	344	5.19	12.6	20.0	27.5	43.6	5.33	12.9	20.6	28.2	59.0	66.7	82.1	97.4	113	144	167	213	236	321	344
25.0	10.1	19.4	28.0	36.1	57.1	10.7	20.1	30.2	39.3	74.5	83.1	100	117	134	167	192	241	266	355	379	10.1	19.4	28.0	36.1	57.1	10.7	20.1	30.2	39.3	74.5	83.1	100	117	134	167	192	241	266	355	379	10.1	19.4	28.0	36.1	57.1	10.7	20.1	30.2	39.3	74.5	83.1	100	117	134	167	192	241	266	355	379
10.0	16.2	26.8	36.0	44.4	71.3	17.7	29.9	40.9	51.4	90.5	100	119	137	155	190	217	269	295	388	414	16.2	26.8	36.0	44.4	71.3	17.7	29.9	40.9	51.4	90.5	100	119	137	155	190	217	269	295	388	414	16.2	26.8	36.0	44.4	71.3	17.7	29.9	40.9	51.4	90.5	100	119	137	155	190	217	269	295	388	414
5.0	20.6	31.6	41.0	49.5	80.9	23.0	36.5	48.4	59.6	101	111	130	150	168	205	233	286	313	409	435	20.6	31.6	41.0	49.5	80.9	23.0	36.5	48.4	59.6	101	111	130	150	168	205	233	286	313	409	435	20.6	31.6	41.0	49.5	80.9	23.0	36.5	48.4	59.6	101	111	130	150	168	205	233	286	313	409	435
1.0	29.8	41.3	50.6	58.8	101	35.4	51.1	64.7	77.3	123	134	155	176	196	235	264	321	349	450	477	29.8	41.3	50.6	58.8	101	35.4	51.1	64.7	77.3	123	134	155	176	196	235	264	321	349	450	477	29.8	41.3	50.6	58.8	101	35.4	51.1	64.7	77.3	123	134	155	176	196	235	264	321	349	450	477
1.5	6.5	10	X	X	25	X	40	65	X	X	X	X	100	X	X	X	150	X	250	X	1.5	6.5	10	X	25	X	40	65	X	X	X	X	100	X	150	X	250	X	1.5	6.5	10	X	25	X	40	65	X	X	X	X	100	X	150	X	250	X				

Note: Binomial distribution used for percent defective computations. Plots for defects per hundred units.

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Δ	-	Use next preceding sample size:code letter for which acceptance and rejection numbers are available.
∇	-	Use next subsequent sample size:code letter, for which acceptance and rejection numbers are available.
Ac	=	Acceptance number.
R _{re}	=	Rejection number.
•	-	Use single sampling plan above (or alternatively use code letter H)
a	=	Acceptance not permitted at this sample size.

E

TABLE X-F—Tables for sample size code letter: F

CHART F - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

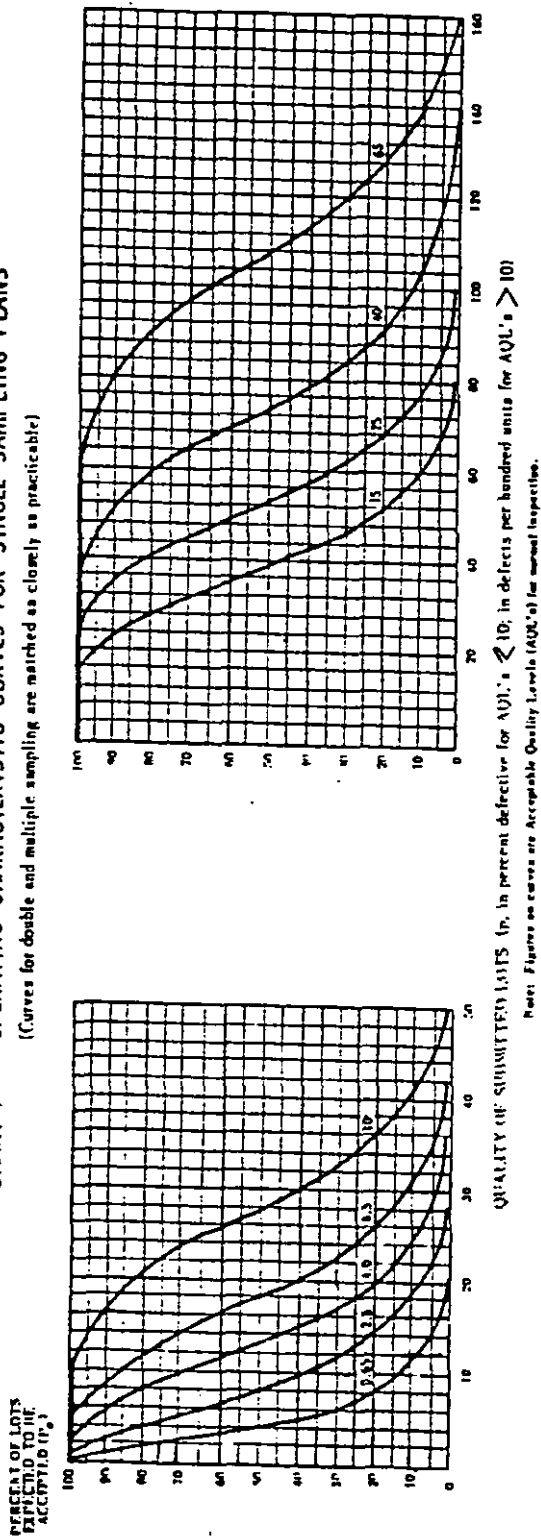


TABLE X-F-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _a	Acceptable Quality Levels (normal inspection)																
	p (in percent defective)							p (in defects per hundred units)									
	0.65	2.5	4.0	6.5	10	0.65	2.5	4.0	6.5	10	15	25	40	65			
99.0	0.0502	0.759	2.27	4.36	9.75	0.0503	0.743	2.18	4.12	8.93	14.5	17.5	23.9	30.5	37.4	51.7	62.9
95.0	0.256	1.81	4.22	7.14	14.0	0.256	1.78	4.09	6.83	13.1	19.9	23.5	30.8	38.4	46.2	62.2	74.5
90.0	0.525	2.69	5.64	9.03	16.6	0.527	2.66	5.51	8.72	15.8	23.3	27.2	35.1	43.2	51.5	68.4	81.2
75.0	1.43	4.81	8.70	12.8	21.6	1.44	4.81	8.64	12.7	21.1	29.8	34.2	43.3	52.1	61.2	79.5	93.4
50.0	3.41	8.25	13.1	18.1	27.9	3.47	8.39	13.4	18.4	28.4	38.3	43.3	53.3	63.3	73.3	93.3	108
25.0	6.70	12.9	18.7	24.2	34.8	6.93	13.5	19.6	25.5	37.1	48.4	54.0	65.1	76.1	87.0	109	125
10.0	10.9	18.1	24.5	30.4	41.5	11.5	19.4	26.6	33.4	46.4	58.9	65.0	77.0	88.9	101	124	141
5.0	13.9	21.6	28.3	34.4	45.6	15.0	23.7	31.5	38.8	52.6	65.7	72.2	84.8	97.2	109	133	151
1.0	20.6	28.9	35.8	42.1	53.2	23.0	33.2	42.0	50.2	65.5	80.0	87.0	101	114	127	153	172
	1.0	4.0	6.5	10	×	1.0	4.0	6.5	10	15	×	25	×	40	×	65	×

Acceptable Quality Levels (tightened inspection)

Note: Shaded distribution used for percent defective comparison; Polymers for defects per hundred units.

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TABLE X-F-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: F

Type of sampling plan	Consecutive sample size	Acceptable Quality Levels (normal inspection)																												Higher than 65		
		Less than 0.65	0.65		1.0		1.5		2.5		4.0		6.5		10		15		25		40		65		Higher than 65							
			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re				
			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re				
Single	20	▽	0	1						1	2	2	3	3	4	5	6	7	8	9	10	11	12	13	14	15	18	19	21	22	△	20
	13	▽	.							0	2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	△
Double	26	▽	.							1	2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	26
	5	▽	.							.	2	.	2	.	3	.	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	△
Multiple	10									.	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	10
	15									0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	15
	20									0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	20
	25									1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	25
	30									1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	30
	35									2	3	4	5	6	7	9	10	13	14	14	15	16	19	21	22	25	26	32	33	37	38	35
		Less than 1.0	1.0								4.0	6.5	10	15							25		40								Higher than 65	
		Acceptable Quality Levels (tightened inspection)																														

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

. = Use single sampling plan above (or alternatively use code letter J)

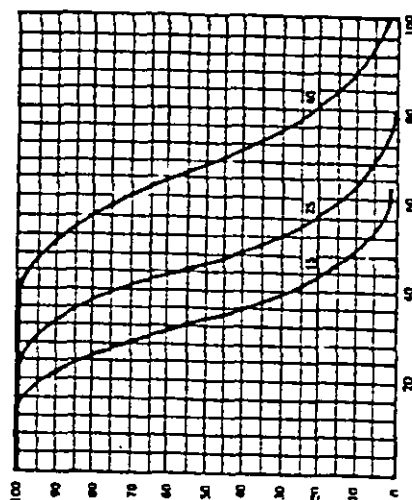
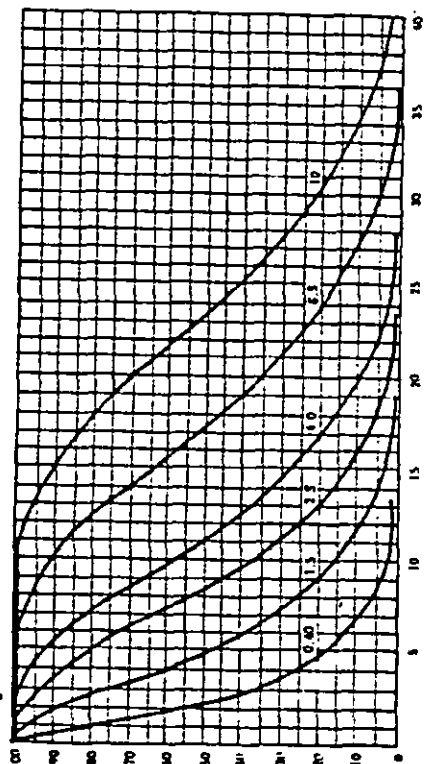
. = Acceptance not permitted at this sample size.

TABLE X-G—Tables for sample size code letter: G

CHART C - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

are matched as closely as practicable)

PERCENT OF LOTS
EXPIRING IN RI:
ACCEPTED (P.)



QUALITY OF SUBMITTED LOTS (p) in percent defective for AQL's ≤ 10 ; in defects per hundred units for AQL's > 10

TABLE X-G-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _c	Acceptable Quality Levels (normal inspection)																	
	p (in percent defective)						p (in defects per hundred units)											
	0.40	1.5	2.5	4.0	6.5	10	0.40	1.5	2.5	4.0	6.5	10	15	25	40			
99.0	0.0314	0.471	1.40	2.67	5.88	9.73	0.0314	0.464	1.36	2.57	5.38	9.08	11.0	14.9	19.1	23.4	32.3	39.3
95.0	0.160	1.12	2.60	4.38	8.50	13.1	0.160	1.11	2.58	4.27	8.17	12.4	14.7	19.3	24.0	28.9	38.9	46.5
90.0	0.329	1.67	3.49	5.56	10.2	15.1	0.329	1.66	3.44	5.45	9.85	14.6	17.0	21.9	27.0	32.2	42.7	50.8
75.0	0.895	3.01	5.42	7.98	13.4	19.0	0.899	3.00	5.40	7.92	13.2	18.6	21.4	26.9	32.6	38.2	49.7	58.4
50.0	2.14	5.19	8.27	11.4	17.5	23.7	2.17	5.24	8.38	11.5	17.7	24.0	27.1	33.3	39.6	45.8	58.3	67.7
25.0	4.24	8.19	11.9	15.4	22.3	29.0	4.33	8.41	12.3	16.0	23.2	30.3	33.8	40.7	47.6	54.4	67.9	78.0
10.0	6.94	11.6	15.8	19.7	27.1	34.1	7.20	12.2	16.6	20.9	29.0	36.8	40.6	48.1	55.6	62.9	77.4	88.1
5.0	8.94	14.0	18.4	22.5	30.1	37.2	9.36	14.8	19.7	24.2	32.9	41.1	45.1	53.0	60.8	68.4	83.4	94.5
1.0	13.4	19.0	23.8	28.1	36.0	43.2	14.4	20.7	26.3	31.4	41.0	50.0	54.4	63.0	71.3	79.5	95.6	107
	0.65	2.5	4.0	6.5	10	X	0.65	2.5	4.0	6.5	10	X	15	X	25	X	40	X

Acceptable Quality Levels (tightened inspection)

Note: Statistical distributions used for percent deflection computation of the beam for deflection under load.

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TABLE X-G-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: G

Type of sampling plan	Cumulative sample size	Acceptable Quality Levels (normal inspection)																												Higher than 40	
		Less than 0.40		0.40		0.65		1.0		1.5		2.5		4.0		6.5		10		15		25		40		Higher than 40					
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
Single	32	▽	0	1																									△		32
Double	20	▽	.																												20
	40																														40
Multiple	8	▽	.																												8
	16																														16
	24																														24
	32																														32
	40																														40
	48																														48
	56																													56	
		Less than 0.65	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	Higher than 40	Acceptable Quality Levels (tightened inspection)																	

△ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac Acceptance number.

Re Rejection number.

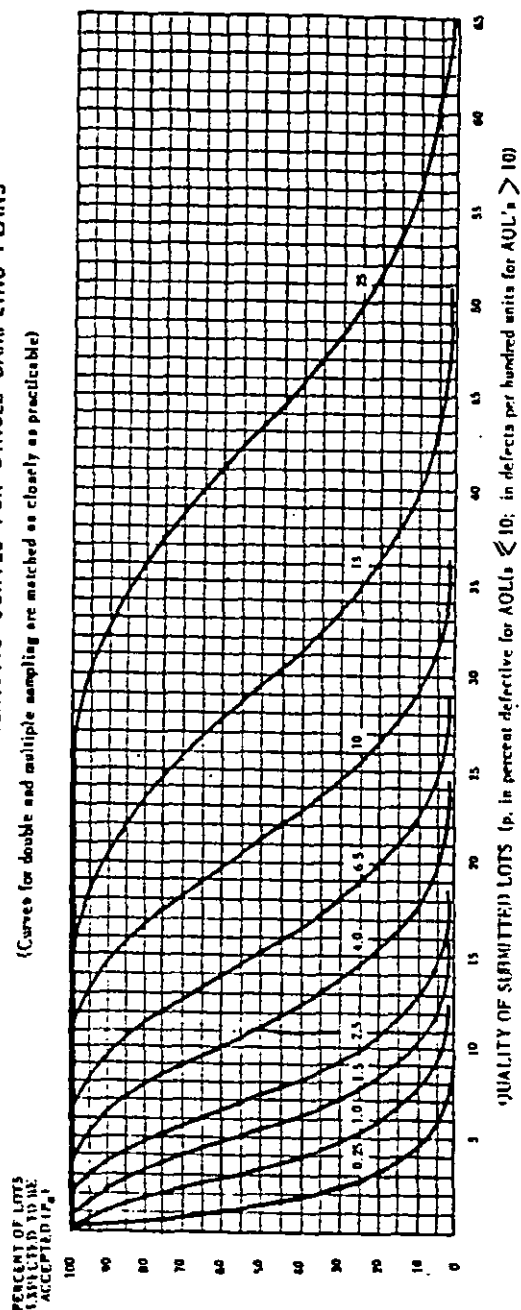
. Use single sampling plan above (or alternatively use code letter H)

. Acceptance not permitted at this sample size.

TABLE X-H—Tables for sample size code letter: H

CHART H - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

((Curves for double and multiple sampling are matched as closely as practicable))



Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-11-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _e	Acceptable Quality Levels (normal inspection)															p (in percent defective)															p (in defects per hundred units)														
	0.25	1.0	1.5	2.5	4.0	6.5	10	15	25	40	6.5	10	15	25	40	6.5	10	15	25	40	6.5	10	15	25	40	6.5	10	15	25	40															
	0.0201	0.300	0.886	1.68	3.69	6.07	7.38	10.1	0.0201	0.297	0.872	1.65	3.57	5.81	7.01	9.54	12.2	15.0	20.7	25.1	0.0201	0.300	0.886	1.68	3.69	6.07	7.38	10.1	0.0201	0.297	0.872	1.65	3.57	5.81	7.01	9.54	12.2	15.0	20.7	25.1					
99.0	0.0201	0.300	0.886	1.68	3.69	6.07	7.38	10.1	0.0201	0.297	0.872	1.65	3.57	5.81	7.01	9.54	12.2	15.0	20.7	25.1	0.0201	0.300	0.886	1.68	3.69	6.07	7.38	10.1	0.0201	0.297	0.872	1.65	3.57	5.81	7.01	9.54	12.2	15.0	20.7	25.1					
95.0	0.103	0.715	1.66	2.78	5.36	8.22	9.72	12.9	0.103	0.711	1.64	2.73	5.23	7.96	9.39	12.3	15.4	18.5	24.9	29.8	0.103	0.715	1.66	2.78	5.36	8.22	9.72	12.9	0.103	0.711	1.64	2.73	5.23	7.96	9.39	12.3	15.4	18.5	24.9	29.8					
90.0	0.210	1.07	2.22	3.53	6.43	9.54	11.2	14.5	0.211	1.06	2.20	3.49	6.30	9.31	10.9	14.0	17.3	20.6	27.3	32.5	0.210	1.07	2.22	3.53	6.43	9.54	11.2	14.5	0.211	1.06	2.20	3.49	6.30	9.31	10.9	14.0	17.3	20.6	27.3	32.5					
75.0	0.574	1.92	3.46	5.10	8.51	12.0	13.8	17.5	0.575	1.92	3.45	5.07	8.44	11.9	13.7	17.2	20.8	24.5	31.8	37.4	0.574	1.92	3.46	5.10	8.51	12.0	13.8	17.5	0.575	1.92	3.45	5.07	8.44	11.9	13.7	17.2	20.8	24.5	31.8	37.4					
50.0	1.38	3.33	5.31	7.29	11.3	15.2	17.2	21.2	1.39	3.36	5.35	7.34	11.3	15.3	17.3	21.3	25.3	29.3	37.3	43.3	1.38	3.33	5.31	7.29	11.3	15.2	17.2	21.2	1.39	3.36	5.35	7.34	11.3	15.3	17.3	21.3	25.3	29.3	37.3	43.3					
25.0	2.73	5.29	7.69	10.0	14.5	18.8	21.0	25.2	2.77	5.39	7.84	10.2	14.8	19.4	21.6	26.0	30.4	34.8	43.5	49.9	2.73	5.29	7.69	10.0	14.5	18.8	21.0	25.2	2.77	5.39	7.84	10.2	14.8	19.4	21.6	26.0	30.4	34.8	43.5	49.9					
10.0	4.50	7.56	10.3	12.9	17.8	22.4	24.7	29.1	4.61	7.78	10.6	13.4	18.5	23.5	26.0	30.8	35.6	40.3	49.5	56.4	4.50	7.56	10.3	12.9	17.8	22.4	24.7	29.1	4.61	7.78	10.6	13.4	18.5	23.5	26.0	30.8	35.6	40.3	49.5	56.4					
5.0	5.82	9.14	12.1	14.8	19.9	24.7	27.0	31.6	5.99	9.49	12.6	15.5	21.0	26.3	28.9	33.9	38.9	43.8	53.4	60.5	5.82	9.14	12.1	14.8	19.9	24.7	27.0	31.6	5.99	9.49	12.6	15.5	21.0	26.3	28.9	33.9	38.9	43.8	53.4	60.5					
1.0	8.00	12.6	15.8	18.7	24.2	29.2	31.7	36.3	9.21	13.3	16.8	20.1	26.2	32.0	34.8	40.3	45.6	50.9	61.2	68.7	8.00	12.6	15.8	18.7	24.2	29.2	31.7	36.3	9.21	13.3	16.8	20.1	26.2	32.0	34.8	40.3	45.6	50.9	61.2	68.7					
	0.40	1.5	2.5	4.0	6.5	10	15	25	0.40	1.5	2.5	4.0	6.5	10	15	25	40	50	60	70	0.40	1.5	2.5	4.0	6.5	10	15	25	0.40	1.5	2.5	4.0	6.5	10	15	25	40	50	60	70					

Note: Binomial distribution used for percent defective computations; Poissons for defects per hundred units.

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TABLE X-H-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: H

Type of sampling plan	Cumulative sample size	Acceptable Quality Levels (normal inspection)																								Cumulative sample size						
		Less than 0.25	0.25		0.40		0.65	1.0		1.5		2.5		4.0		6.5		10	15	25	Higher than 25											
			Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re					Ac	Re	Ac	Re		Ac	Re				
																													Ac	Re	Ac	Re
Single	50	▽	0	1					1	2	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	△	50
Double	32	▽	.					Use																							△	32
	64							code Letter																								64
Multiple	13	▽	.					G																							△	13
	26																															26
	39																															39
	52																															52
	65																															65
	78																															
	91																															91
		Less than 0.40	0.40		0.65	1.0			1.5		2.5		4.0		6.5		10		15		25		Higher than 25									
Acceptable Quality Levels (tightened inspection)																																

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

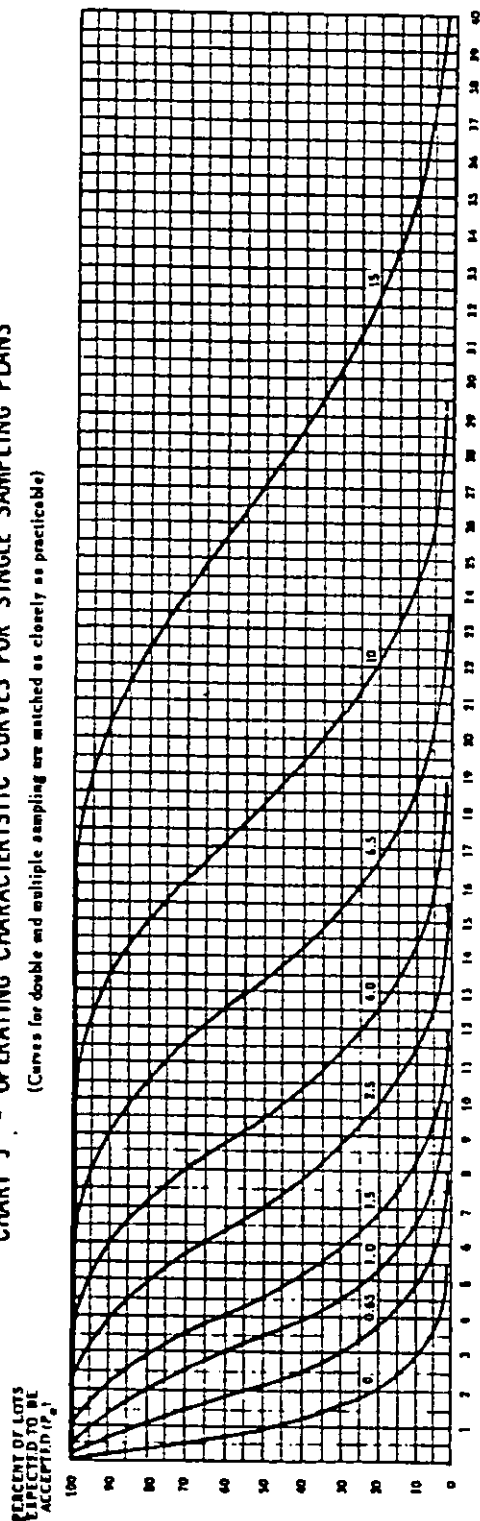
. = Use single sampling plan above (or alternatively use code letter L)

. = Acceptance not permitted at this sample size

TABLE X-J—Tables for sample size code letter: J

CHART J - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)



QUALITY OF SUBMITTED LOTS (p, in percent defective for AQL's ≤ 10 ; in defects per hundred units for AQL's > 10)

Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-J-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _d	Acceptable Quality Levels (Normal inspection)																					
	p (in percent defective)										p (in defects per hundred units)											
	0.15	0.65	1.0	1.5	2.5	4.0	6.5	10	0.15	0.65	1.0	1.5	2.5	4.0	6.5	10	15					
99.0	0.0126	0.107	0.550	1.04	2.28	3.73	4.51	6.17	7.88	9.76	0.0126	0.186	0.545	1.03	2.23	3.63	4.38	5.96	7.62	9.35	12.9	15.7
95.0	0.0641	0.446	1.03	1.73	3.32	5.07	6.00	7.93	9.89	11.9	0.0641	0.444	1.02	1.71	3.27	4.98	5.87	7.71	9.61	11.6	15.6	18.6
90.0	0.132	0.607	1.39	2.20	3.99	5.91	6.90	8.95	11.0	13.2	0.132	0.665	1.38	2.18	3.94	5.82	6.79	8.78	10.8	12.9	17.1	20.3
75.0	0.359	1.201	2.16	3.18	5.30	7.50	8.61	10.9	13.2	15.5	0.360	1.20	2.16	3.17	5.27	7.45	8.55	10.8	13.0	15.3	19.9	23.4
50.0	0.863	2.09	3.33	4.57	7.06	9.55	10.8	13.3	15.8	18.3	0.866	2.10	3.34	4.59	7.09	9.59	10.8	13.3	15.8	18.3	23.3	27.1
25.0	1.72	3.33	4.84	6.30	9.14	11.9	13.3	16.0	18.6	21.3	1.73	3.37	4.90	6.39	9.28	12.1	13.5	16.3	19.0	21.7	27.2	31.2
10.0	2.84	4.78	6.52	8.16	11.3	14.3	15.7	18.6	21.4	24.2	2.88	4.86	6.65	8.35	11.6	14.7	16.2	19.3	22.2	25.2	30.9	35.2
5.0	3.68	5.79	7.66	9.41	12.7	15.8	17.3	20.3	23.2	26.0	3.74	5.93	7.87	9.69	13.1	16.4	18.0	21.2	24.3	27.4	33.4	37.8
1.0	5.59	8.01	10.1	12.0	15.6	18.9	20.5	23.6	26.6	29.5	5.76	8.30	10.5	12.6	16.4	20.0	21.8	25.2	28.5	31.8	38.2	42.9
	0.25	1.0	1.5	2.5	4.0	6.5	10	15	20	25	0.25	1.0	1.5	2.5	4.0	6.5	10	15	20	25	30	35

Acceptable Quality Levels (tightened inspection)																						
	0.25	1.0	1.5	2.5	4.0	6.5	10	15	20	25	0.25	1.0	1.5	2.5	4.0	6.5	10	15	20	25	30	35

Note: Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

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TABLE X-J-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: J

Type of sampling plan	Consecutive sample size	Acceptable Quality Levels (normal inspection)																	Consecutive sample size							
		Less than 0.15	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	Higher than 15												
														Ac	Re	Ac	Re	Ac		Re	Ac	Re	Ac	Re	Ac	Re
Single	80	▽	0 1				1 2 2 3 3 4	5 6 7 8	9 10 11 12 13 14	15 16 17 18 19 21	22	△						80								
Double	50	▽	.		Use code Letter	0 2 0 3 1 4	2 5 3 7	3 7 5 9	6 10 7 11 9 16	11 16	△						50									
	100				Use code Letter	1 2 3 4 4 5 6 7	8 9 11 12 13 15 16 18 19 23	24 26 27									100									
Multiple	20	▽	.		H L K	0 2 0 3 1 4 2 6 3 8 4 9	6 10 7 12 13 14 17 18 19 21	22 25 26 32 33 37 38									20									
	40					0 3 1 4 2 5 3 7 5 10 6 11 8 13 10 15 12 17 16 22 19 25										40										
	60					1 3 2 4 3 6 5 8 7 11 9 12 11 15 14 17 17 20 22 25 29										60										
	80					2 3 4 5 6 7 9 10 12 14 16 18 20 21 23 27 29 31 33										80										
	100					3 4 5 6 7 9 10 12 14 16 18 20 21 23 27 29 31 33										100										
	120					4 5 6 7 9 10 12 14 16 18 20 21 23 27 29 31 33										120										
	140					5 6 7 9 10 12 14 16 18 20 21 23 27 29 31 33										140										
		Less than 0.25	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	Higher than 15													
Acceptable Quality Levels (tightened inspection)																										

Acceptable Quality Levels (tightened inspection)

△ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac Acceptance number

Re Rejection number

. Use single sampling plan above (or alternatively use code letter H)

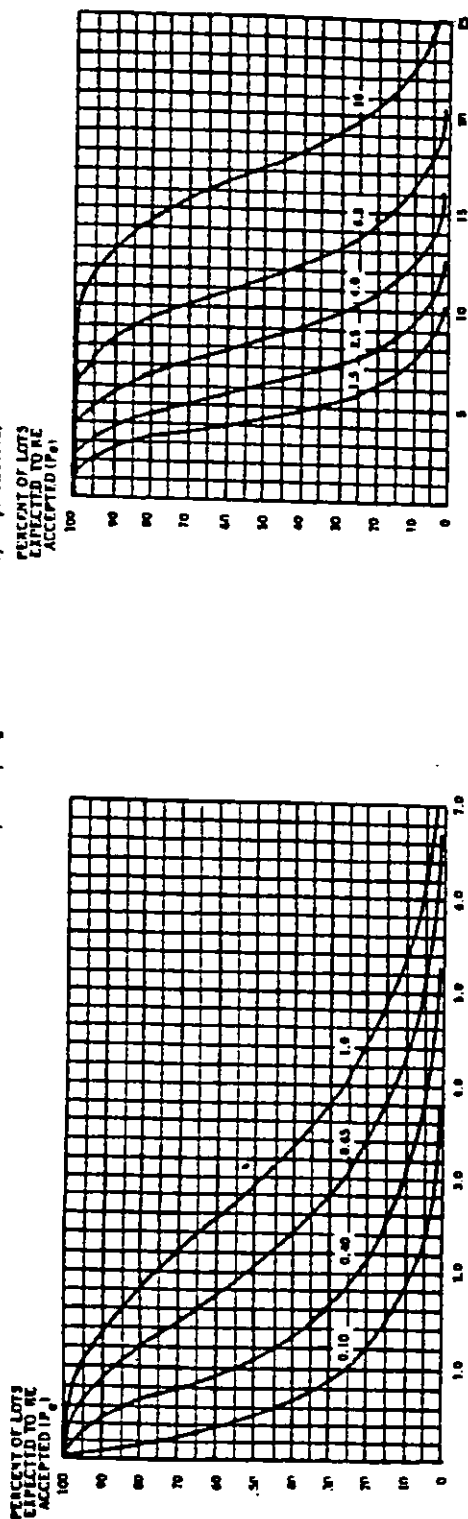
: Acceptance not permitted at this sample size.

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TABLE X-K—Tables for sample size code letter: K

CHART K - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)



Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-K-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _a	Acceptable Quality Levels (normal inspection)									
	0.10	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15
	p (in percent defective or defects per hundred units)									
99.0	0.00004	0.119	0.349	0.659	1.43	2.32	2.81	3.82	4.88	5.98
95.0	0.0410	0.284	0.654	1.09	2.09	3.18	3.76	4.94	6.15	7.40
90.0	0.0843	0.425	0.882	1.40	2.52	3.72	4.35	5.62	6.92	8.24
75.0	0.230	0.769	1.382	2.03	3.38	4.76	5.47	6.90	8.34	9.79
50.0	0.555	1.34	2.14	2.94	4.54	6.14	6.94	8.53	10.1	11.7
25.0	1.11	2.15	3.14	4.09	5.94	7.75	8.64	10.4	12.2	13.9
10.0	1.84	3.11	4.26	5.34	7.42	9.82	10.4	12.3	14.2	16.1
5.0	2.40	3.80	5.04	6.20	8.41	10.5	11.5	13.6	15.6	17.5
1.0	3.68	5.31	6.72	8.04	10.5	12.8	18.3	16.1	18.3	20.4
0.15	0.63	1.0	1.5	2.5	4.0	6.5	10	10	10	10
Acceptable Quality Levels (tightened inspection)										

Note: All values given in above table based on Poisson distribution as an approximation to the Binomial.

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TABLE X-K-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: K

Type of sampling plan	Comm- plete sample size	Acceptable Quality Levels (normal inspection)																								Comm- plete sample size							
		Less than 0.10	0.10		0.15	X		0.25	0.40		0.65	1.0		1.5		2.5		X		4.0		X		6.5			X		Higher than 10				
			Ac	Re		Ac	Re		Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re		Ac	Re		
Single	125	▽	0	1						1	2	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	△	125
	80	▽	.							0	2	0	3	1	4	2	5	3	7	3	5	9	6	10	7	11	9	14	11	16	△	80	
Double	160									1	2	3	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	21	26	27		160	
	32	▽	.							.	2	.	2	.	3	.	4	0	4	0	5	0	6	1	7	1	8	2	9	△	32		
Multiple	64									.	2	0	3	0	3	1	5	1	6	2	3	8	3	9	4	10	6	12	7	14		64	
	96									0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	96	
	128									0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	128	
	160									1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	29		160	
	192									1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	192	
	224									2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	224	
		Less than 0.15								0.65	1.0	1.5	2.5																			Higher than 10	
		Acceptable Quality Levels (tightened inspection)																															

△ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac Acceptance number

Re Rejection number

. Use single sampling plan above (or alternatively use code letter n)

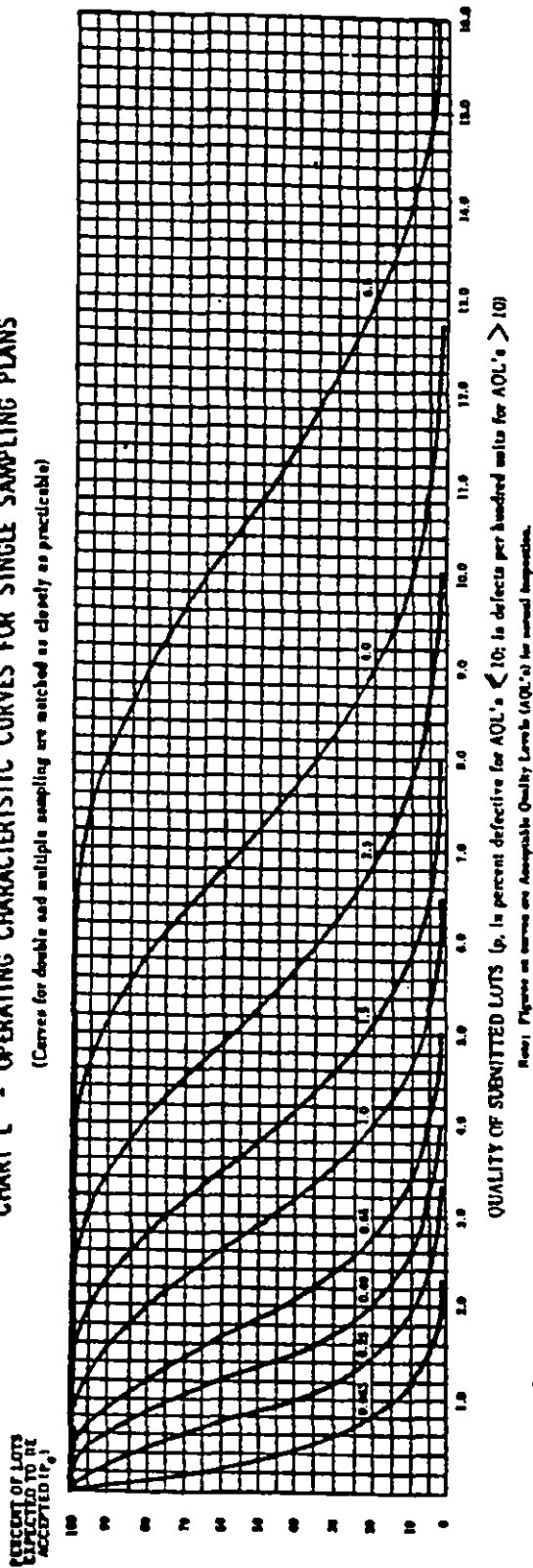
. Acceptance not permitted at this sample size.

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TABLE X-L—Tables for sample size code letter: L

CHART L - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)



Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-L-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P_a	Acceptable Quality Levels (normal inspection)											
	0.065	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10.0	15.0	20.0
p (in percent defective or defects per hundred units)												
99.0	0.00503	0.075	0.218	0.412	0.693	1.45	1.75	2.39	3.05	3.74	5.17	6.29
95.0	0.0256	0.178	0.409	0.683	1.31	1.99	2.35	3.08	3.84	4.62	6.22	7.45
90.0	0.0527	0.286	0.531	0.872	1.58	2.33	2.72	3.51	4.32	5.15	6.84	8.12
75.0	0.144	0.481	0.864	1.27	2.11	2.96	3.42	4.31	5.21	6.12	7.95	9.34
50.0	0.347	0.639	1.34	1.84	2.84	3.84	4.33	5.33	6.33	7.33	9.33	10.8
25.0	0.690	1.35	1.96	2.55	3.71	4.83	5.40	6.51	7.61	8.70	10.9	12.5
10.0	1.15	1.94	2.66	3.34	4.64	5.89	6.50	7.70	8.89	10.1	12.4	14.1
5.0	1.50	2.37	3.15	3.88	5.26	6.57	7.22	8.48	9.72	10.9	13.3	15.1
1.0	2.30	3.32	4.20	5.02	6.55	8.00	8.70	10.1	11.4	12.7	15.3	17.2
0.10		0.40	0.65	1.0	1.5	2.5	4.0	6.5	10.0	15.0	20.0	25.0
Acceptable Quality Levels (tightened inspection)												

Notes: AQL values given in above table based on Poisson distribution as an approximation to the Binomial.

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TABLE X-L-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: L

.Type of sampling plan	Canno- lative sample size	Acceptable Quality Levels (normal inspection)																								Canno- lative sample size				
		Less than 0.065	0.065		0.10		0.15		0.25		0.40		0.65		1.0		1.5		2.5		4.0		6.5		Higher than 6.5					
			Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re						
Single	200	▽	0	1																										△
Double	125	▽	.																											△
	250																													
Multiple	50	▽	.																											△
	100																													
	150																													
	200																													
	250																													
	300																													
	350																													
		Less than 0.10	0.10		0.15		0.25		0.40	0.65	1.0	1.5		2.5		4.0		6.5												Higher than 6.5
		Acceptable Quality Levels (tightened inspection)																												

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

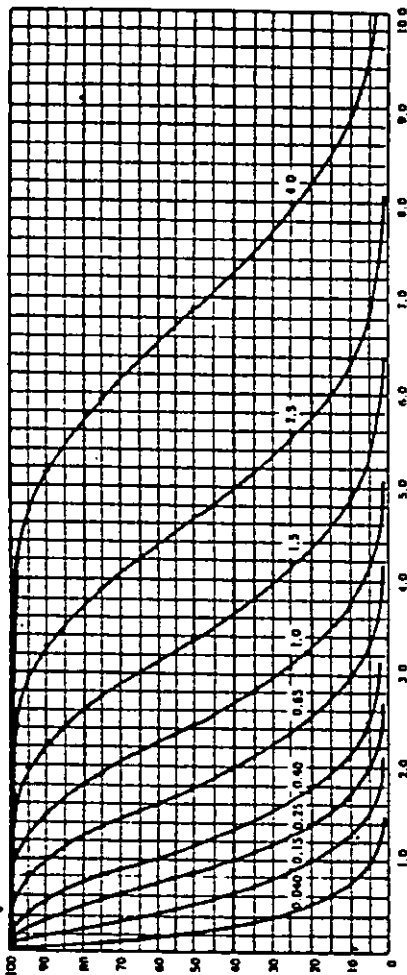
Re = Rejection number

. = Use single sampling plan above (or alternatively use code letter P)

0 = Acceptance not permitted at this sample size.

TABLE X-M—Tables for sample size code letter: M

CHART M - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS
(Curves for double and multiple sampling are matched as closely as practicable)



QUALITY OF SUBMITTED LOTS (p. in percent defective for $AQL's \leq 10$; in defects per hundred units for $AQL's > 10$)

TABLE X-M-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P.	Acceptable Quality Levels (normal inspection)											
	0.040	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0			
	p (in percent defective or in defects per hundred units)											
99.0	0.00319	0.0472	0.138	0.261	0.567	0.923	1.11	1.51	1.94	2.37	3.28	3.99
95.0	0.0163	0.113	0.260	0.434	0.830	1.26	1.49	1.96	2.44	2.94	3.95	4.73
90.0	0.0335	0.169	0.350	0.534	1.00	1.48	1.72	2.23	2.74	3.27	4.34	5.16
75.0	0.0913	0.305	0.548	0.805	1.34	1.89	2.17	2.74	3.31	3.89	5.05	5.93
50.0	0.220	0.533	0.849	1.17	1.80	2.43	2.75	3.39	4.02	4.66	5.93	6.88
25.0	0.440	0.855	1.24	1.62	2.36	3.07	3.43	4.13	4.83	5.52	6.90	7.92
10.0	0.731	1.23	1.69	2.12	2.94	3.74	4.13	4.89	5.64	6.39	7.86	8.95
5.0	0.951	1.51	2.00	2.46	3.34	4.17	4.58	5.38	6.17	6.95	8.47	9.60
1.0	1.46	2.11	2.67	3.19	4.16	5.08	5.52	6.40	7.24	8.08	9.71	10.9
	0.065	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10.9	17.7	23.8
	Acceptable Quality Levels (tightened inspection)											
	0.040	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10.9	23.8

Notes: A1) values given in above table based on Poisson distribution as no approximation to the Binomial).

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TABLE X-M-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: M

Type of sampling plan	Cumulative sample size	Acceptable Quality Levels (normal inspection)																								Cumulative sample size						
		Less than 0.040	0.040	0.065	0.10		0.15	0.25	0.40	0.65	1.0	1.5		2.5		4.0		Higher than 4.0														
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re													
Single	315	▽	0	1					1	2	2	3	3	4	5	6	7	8	9	10	11	12	13	14	15	18	19	21	22	△	315	
Double	200	▽	.						0	2	0	3	1	4	2	5	3	7	3	5	9	6	10	7	11	9	14	11	16	△	200	
	400								1	2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	400	
Multiple	80	▽	.						.	2	.	2	.	3	.	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	△	80
	160								.	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	160	
	240								0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	240	
	320								0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	320	
	400								1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	400	
	480								1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	480	
	560								2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	560	
		Less than 0.065	0.065						0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0														Higher than 4.0	
		Acceptable Quality Levels (tightened inspection)																														

- △ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.
 ▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.
 Ac = Acceptance number.
 Re = Rejection number.
 . = Use single sampling plan above (or alternatively use code letter Q)
 . = Acceptance not permitted at this sample size.

TABLE X-N—Tables for sample size code letter: N

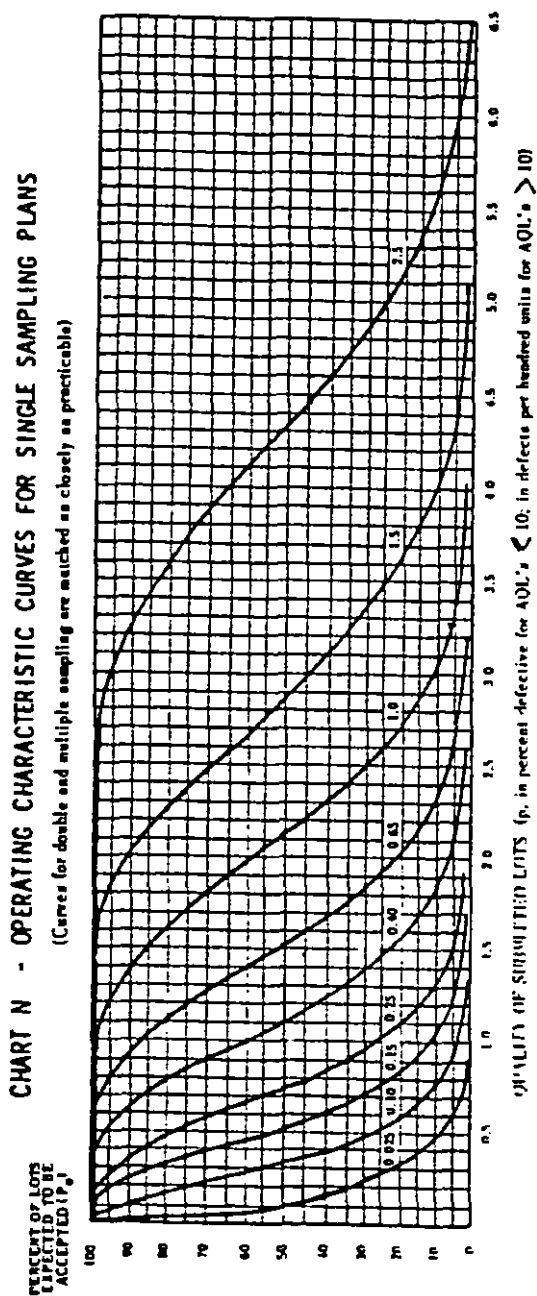


TABLE X-N-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _a	Acceptable Quality Levels (normal inspection)										
	0.025	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	5	10
	p in percent defective or in defects per hundred units										
99.0	0.00201	0.0297	0.0072	0.165	0.357	0.581	0.701	0.954	1.22	1.50	2.07
95.0	0.0103	0.711	0.164	0.273	0.523	0.796	0.939	1.23	1.54	1.85	2.49
90.0	0.0211	0.106	0.220	0.349	0.630	0.931	1.09	1.40	1.73	2.06	2.73
75.0	0.0575	0.192	0.345	0.507	0.844	1.19	1.37	1.72	2.08	2.45	3.18
50.0	0.139	0.336	0.535	0.734	1.13	1.53	1.73	2.13	2.53	2.93	3.73
25.0	0.277	0.539	0.784	1.02	1.48	1.94	2.16	2.60	3.04	3.48	4.35
10.0	0.461	0.778	1.06	1.34	1.85	2.35	2.60	3.08	3.56	4.03	4.95
5.0	0.599	0.949	1.26	1.55	2.10	2.63	2.89	3.39	3.89	4.38	5.34
1.0	0.921	1.33	1.68	2.01	2.62	3.20	3.48	4.03	4.56	5.09	6.12
	0.040	0.15	0.25	0.40	0.65		1.0		1.5		2.5

Acceptable Quality Levels (tightened inspection)										
P _a	0.025	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	5
99.0	0.00201	0.0297	0.0072	0.165	0.357	0.581	0.701	0.954	1.22	1.50
95.0	0.0103	0.711	0.164	0.273	0.523	0.796	0.939	1.23	1.54	1.85
90.0	0.0211	0.106	0.220	0.349	0.630	0.931	1.09	1.40	1.73	2.06
75.0	0.0575	0.192	0.345	0.507	0.844	1.19	1.37	1.72	2.08	2.45
50.0	0.139	0.336	0.535	0.734	1.13	1.53	1.73	2.13	2.53	2.93
25.0	0.277	0.539	0.784	1.02	1.48	1.94	2.16	2.60	3.04	3.48
10.0	0.461	0.778	1.06	1.34	1.85	2.35	2.60	3.08	3.56	4.03
5.0	0.599	0.949	1.26	1.55	2.10	2.63	2.89	3.39	3.89	4.38
1.0	0.921	1.33	1.68	2.01	2.62	3.20	3.48	4.03	4.56	5.09
	0.040	0.15	0.25	0.40	0.65		1.0		1.5	2.5

For more information, call 1-800-368-6868 or visit our website at www.1000.org.

TABLE X-N-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER, N

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Type of sampling plan	Consecutive sample size	Acceptable Quality Levels (normal inspection)	Consecutive sample size																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Less than 0.025	0.025	0.040	X	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	Higher than 2.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Single	500	▽	0	1	Use code letter M	Use code letter N	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	29	29	30	30	31	31	32	32	33	33	34	34	35	35	36	36	37	37	38	38	39	39	40	40	41	41	42	42	43	43	44	44	45	45	46	46	47	47	48	48	49	49	50	50	51	51	52	52	53	53	54	54	55	55	56	56	57	57	58	58	59	59	60	60	61	61	62	62	63	63	64	64	65	65	66	66	67	67	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	80	81	81	82	82	83	83	84	84	85	85	86	86	87	87	88	88	89	89	90	90	91	91	92	92	93	93	94	94	95	95	96	96	97	97	98	98	99	99	100	100	101	101	102	102	103	103	104	104	105	105	106	106	107	107	108	108	109	109	110	110	111	111	112	112	113	113	114	114	115	115	116	116	117	117	118	118	119	119	120	120	121	121	122	122	123	123	124	124	125	125	126	126	127	127	128	128	129	129	130	130	131	131	132	132	133	133	134	134	135	135	136	136	137	137	138	138	139	139	140	140	141	141	142	142	143	143	144	144	145	145	146	146	147	147	148	148	149	149	150	150	151	151	152	152	153	153	154	154	155	155	156	156	157	157	158	158	159	159	160	160	161	161	162	162	163	163	164	164	165	165	166	166	167	167	168	168	169	169	170	170	171	171	172	172	173	173	174	174	175	175	176	176	177	177	178	178	179	179	180	180	181	181	182	182	183	183	184	184	185	185	186	186	187	187	188	188	189	189	190	190	191	191	192	192	193	193	194	194	195	195	196	196	197	197	198	198	199	199	200	200	201	201	202	202	203	203	204	204	205	205	206	206	207	207	208	208	209	209	210	210	211	211	212	212	213	213	214	214	215	215	216	216	217	217	218	218	219	219	220	220	221	221	222	222	223	223	224	224	225	225	226	226	227	227	228	228	229	229	230	230	231	231	232	232	233	233	234	234	235	235	236	236	237	237	238	238	239	239	240	240	241	241	242	242	243	243	244	244	245	245	246	246	247	247	248	248	249	249	250	250	251	251	252	252	253	253	254	254	255	255	256	256	257	257	258	258	259	259	260	260	261	261	262	262	263	263	264	264	265	265	266	266	267	267	268	268	269	269	270	270	271	271	272	272	273	273	274	274	275	275	276	276	277	277	278	278	279	279	280	280	281	281	282	282	283	283	284	284	285	285	286	286	287	287	288	288	289	289	290	290	291	291	292	292	293	293	294	294	295	295	296	296	297	297	298	298	299	299	300	300	301	301	302	302	303	303	304	304	305	305	306	306	307	307	308	308	309	309	310	310	311	311	312	312	313	313	314	314	315	315	316	316	317	317	318	318	319	319	320	320	321

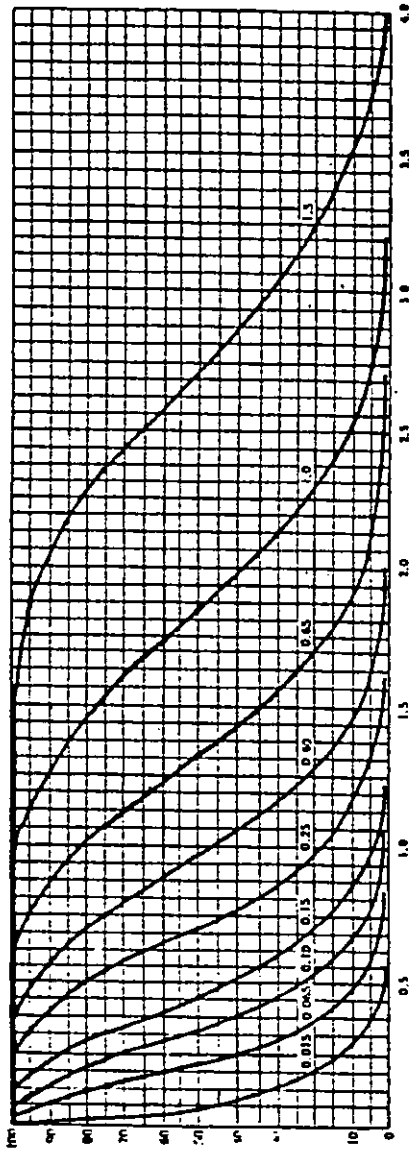
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- △ Use next preceding sample size code letter for which acceptance and rejection numbers are available.
 ▽ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.
 Ac Acceptance number
 Re Rejection number
 . Use single sampling plan above (or alternatively use code letter B)
 . Acceptance not permitted at this sample size.

TABLE X-P—Tables for sample size code letter: P

CHART P - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

PERCENT OF LOTS
ACCEPTED (Pa)
CRITICAL (Pc)QUALITY OF SUBMITTED LOTS (p) is percent defective for AQL's ≤ 10 ; in defects per hundred units for AQL's > 10

Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection.

TABLE X-P-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

Pa	Acceptable Quality Levels (normal inspection)										
	0.015	0.045	0.10	0.15	0.25	0.40	0.596	0.771	0.935	1.0	1.5
p (in percent defective or defects per hundred units)											
99.0	0.00126	0.0186	0.0345	0.103	0.223	0.363	0.438	0.596	0.752	0.935	1.29
95.0	0.00641	0.0444	0.102	0.171	0.327	0.498	0.587	0.771	0.961	1.16	1.56
90.0	0.0132	0.0665	0.138	0.218	0.394	0.582	0.679	0.878	1.08	1.29	1.71
75.0	0.0360	0.120	0.216	0.317	0.527	0.745	0.855	1.08	1.30	1.53	1.99
50.0	0.0666	0.210	0.334	0.459	0.709	0.959	1.08	1.33	1.58	1.83	2.33
25.0	0.173	0.337	0.490	0.639	0.928	1.21	1.35	1.63	1.90	2.17	2.72
10.0	0.288	0.486	0.665	0.835	1.16	1.47	1.62	1.93	2.22	2.52	3.09
5.0	0.374	0.593	0.787	0.969	1.31	1.64	1.80	2.12	2.43	2.74	3.34
1.0	0.576	0.830	1.05	1.26	1.64	2.00	2.18	2.52	2.85	3.18	3.82
0.025	0.10	0.10	0.15	0.25	0.40	0.596	0.771	0.935	1.0	1.5	2.34
Acceptable Quality Levels (tightened inspection)											
99.0	0.00126	0.0186	0.0345	0.103	0.223	0.363	0.438	0.596	0.752	0.935	1.29
95.0	0.00641	0.0444	0.102	0.171	0.327	0.498	0.587	0.771	0.961	1.16	1.56
90.0	0.0132	0.0665	0.138	0.218	0.394	0.582	0.679	0.878	1.08	1.29	1.71
75.0	0.0360	0.120	0.216	0.317	0.527	0.745	0.855	1.08	1.30	1.53	1.99
50.0	0.0666	0.210	0.334	0.459	0.709	0.959	1.08	1.33	1.58	1.83	2.33
25.0	0.173	0.337	0.490	0.639	0.928	1.21	1.35	1.63	1.90	2.17	2.72
10.0	0.288	0.486	0.665	0.835	1.16	1.47	1.62	1.93	2.22	2.52	3.09
5.0	0.374	0.593	0.787	0.969	1.31	1.64	1.80	2.12	2.43	2.74	3.34
1.0	0.576	0.830	1.05	1.26	1.64	2.00	2.18	2.52	2.85	3.18	3.82
0.025	0.10	0.10	0.15	0.25	0.40	0.596	0.771	0.935	1.0	1.5	2.34

Note: All values given in above table based on Poisson distribution as an approximation to the Binomial.

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TABLE X-P-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: P

Type of sampling plan	Consumptive sample size	Acceptable Quality Levels (normal inspection)																	Higher than 1.5
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	Higher than 1.5					
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
Single	800	▽	0 1			1 2	2 3	3 4	5 6	7 8	9 10	11 12	13 14	15 16	17 18	19 20	21 22	△	
	500	▽			Use code Letter	0 2	0 3	1 4	2 5	3 7	5 9	6 10	7 11	9 14	11 16		△		
	1000					1 2	3 4	4 5	6 7	8 9	11 12	13 15	16 18	19 23	24 26	27	1000		
Multiple	200	▽				0 2	0 2	0 3	0 4	0 4	0 5	0 6	1 7	1 8	2 9		△		
	400					0 2	0 3	0 3	1 5	1 6	2 7	3 8	4 10	6 12	7 14				
	600					0 2	0 3	1 4	2 6	3 8	4 9	6 10	8 13	11 17	13 19				
	800					0 3	1 4	2 5	3 7	5 10	6 11	8 13	10 15	12 17	16 22	19 25			
	1000					1 3	2 4	3 6	5 8	7 11	9 12	11 15	14 17	20 22	25 29				
	1200					1 3	3 5	4 6	7 9	10 12	12 14	16 17	18 20	23 27	29 31	33			
	1400					2 3	4 5	6 7	9 10	13 14	15 16	19 21	22 25	26 32	33 37	38			
		Less than 0.025	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	Higher than 1.5						
Acceptable Quality Levels (tightened inspection)																			

△ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

Re = Rejection number.

• Use single sampling plan above.

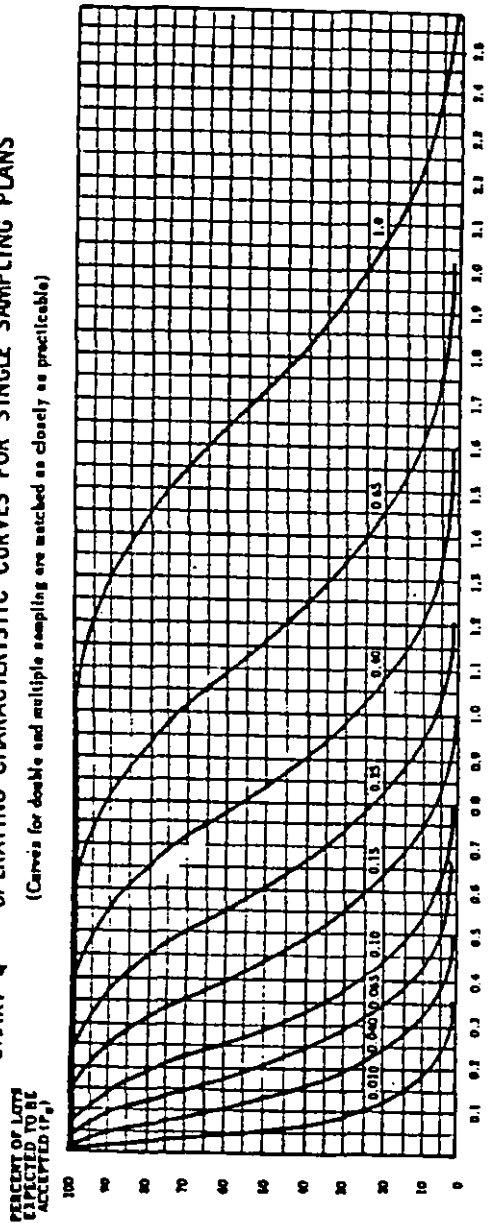
• Acceptance not permitted at this sample size.

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TABLE X-Q—Tables for sample size code letter: Q

CHART Q - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

QUALITY OF SUBMITTED LOTS (p, in percent defective for AQL's ≤ 10 ; in defects per hundred units for AQL's > 10)

Note: Figures on curves are Acceptable Quality Levels (AQL's) for normal inspection

TABLE X-Q-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P_a	Acceptable Quality Levels (normal inspection)									
	0.010	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	
p (in percent defective or defects per hundred units)										
99.0	0.000804	0.0119	0.0349	0.0659	0.143	0.232	0.281	0.382	0.488	0.598
95.0	0.00410	0.0284	0.0654	0.109	0.209	0.318	0.376	0.494	0.615	0.740
90.0	0.00843	0.0425	0.0882	0.140	0.252	0.372	0.435	0.562	0.692	0.824
75.0	0.0230	0.0769	0.138	0.203	0.338	0.476	0.547	0.690	0.834	0.979
50.0	0.0515	0.134	0.214	0.294	0.454	0.614	0.694	0.853	1.01	1.17
25.0	0.111	0.215	0.316	0.409	0.594	0.775	0.864	1.04	1.22	1.39
10.0	0.184	0.311	0.426	0.534	0.742	0.942	1.04	1.23	1.42	1.61
5.0	0.240	0.380	0.504	0.620	0.841	1.05	1.15	1.36	1.56	1.75
1.0	0.368	0.531	0.672	0.804	1.05	1.28	1.39	1.61	1.83	2.04
	0.015	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.0	1.0
Acceptable Quality Levels (tightened inspection)										

Note: All values given in above table based on Poisson distribution as an approximation to the Binomial

TABLE X-Q-2 - SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER: Q

Type of sampling plan		Com-muni-cative sample size		Acceptable Quality Levels (normal inspection)																	Com-muni-cative sample size	
				Acceptable Quality Levels (tightened inspection)																		
				0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	Higher than 1.0							
Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Higher than 1.0		
Single	1250	Use	0	1	Use	Ac	Re	Use	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Δ	
Double	800	Use	•	•	Use	Ac	Re	Use	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Δ	
	1600																					
Multiple	315	Use	•	•	Use	Ac	Re	Use	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Δ	
630																						
945																						
1260																						
1575																						
1890																						
2205																						
	0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	Higher than 1.0										
	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Use	code Letter	Higher than 1.0	

△ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

• Use single sampling plan above.

• Acceptance not permitted at this sample size.

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TABLE X-R—Tables for sample size code letter: R

CHART R - OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

(Curves for double and multiple sampling are matched as closely as practicable)

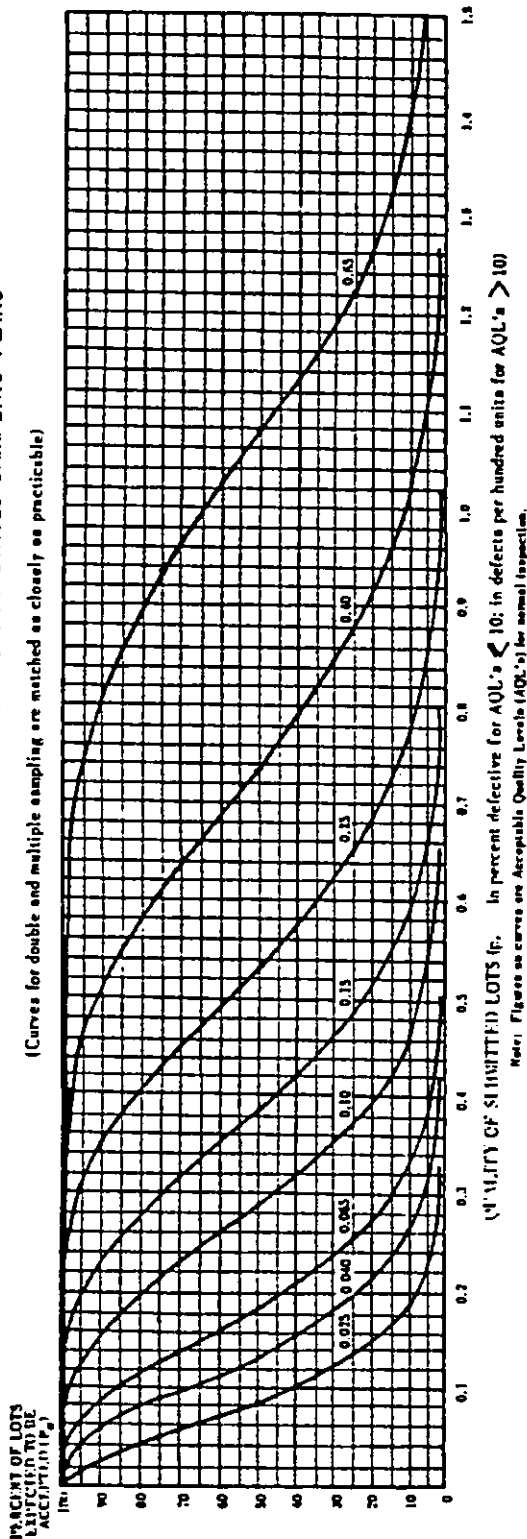


TABLE X-R-1 - TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS

P _a	Acceptable Quality Levels (normal inspection)									
	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5
p (in percent defective or defects per hundred units)										
99.0	0.00743	0.0218	0.0412	0.0892	0.145	0.239	0.374	0.517	0.629	0.745
95.0	0.0178	0.0409	0.0683	0.131	0.199	0.309	0.462	0.622	0.745	0.812
90.0	0.0266	0.0551	0.0872	0.158	0.233	0.351	0.515	0.694	0.812	0.934
75.0	0.0481	0.0864	0.127	0.211	0.298	0.431	0.612	0.795	0.934	1.08
50.0	0.0839	0.134	0.181	0.284	0.383	0.533	0.733	0.933	1.08	1.25
25.0	0.135	0.196	0.255	0.371	0.484	0.651	0.870	1.09	1.25	1.41
10.0	0.194	0.266	0.334	0.464	0.589	0.770	1.01	1.24	1.41	1.51
5.0	0.237	0.315	0.388	0.526	0.657	0.848	1.09	1.33	1.51	1.72
1.0	0.332	0.420	0.502	0.655	0.800	1.02	1.27	1.53	1.72	2.00
0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.0	2.5
Acceptable Quality Levels (lightened inspection)										

Note: All values given in above table based on Poisson distribution as is appropriate to the Binomial.

R

- Use next preceding sample size code letter for which acceptance and rejection numbers are available.
- Acceptance number.
- Rejection number.
- Use single sampling plan above.
- Acceptance not permitted at this sample size.

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TABLE X-S—Tables for sample size code letter: S

Type of sampling plan	Cumulative sample size	Acceptable Quality Level (normal inspection)	
		Ac	Re
Single	3150	1	2
Double	2000	0	2
	4000	1	2
Multiple	800	2	2
	1600	2	2
	2400	0	2
	3200	0	3
	4000	1	3
	4800	1	3
	5600	2	3
		0.025	
		Acceptable Quality Level (tightened inspection)	

Ac = Acceptance number

Re = Rejection number

= Acceptance not permitted at this sample size.

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6. NOTES

6.1 Intended Use. Sampling procedures and tables for inspection by attributes are intended to be used in the acquisition of Defense material.

6.2 Subject Term (Key Word) Listing.

Acceptable Quality Level (AQL)

Average Outgoing Quality (AOQ)

Defect

Defective

Lot or Batch

Process Average

Sample

Sampling Plan

Unit of Product

6.3 Changes from Previous Issue. Vertical lines or asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

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CONCLUDING MATERIAL

Custodians:

Army - AR
Navy - OS
Air Force - 23

Preparing Activity:

Army - AR

Review Activities:

Army - MI, EA, TE, AV, ER
Navy - AS, EC, MC, OM, SA,
SH, TD, YD
DLA - ES, GS, SS
OSD - IP, SO

(Project QCIC-0085)

User Activities:

Army - ME
DLA - ES, SS

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		<input type="checkbox"/> OTHER (Specify): _____	
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