## Single Sampling and Double Sampling Inspection Tables

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#### INTRODUCTION

A CONSIDERABLE amount of attention has been given to the application of statistical methods to problems of inspection with emphasis on means for securing certain definite advantages such as reduction in the cost of inspection, reduction in the cost of production by minimizing rejections, and the attainment of uniform quality of manufactured products.[1, 2, 3, 4] This paper presents four sets of sampling inspection tables that have contributed in a notable way to important reductions in such costs and to substantial improvements in control of quality for many characteristics of products used in the Bell System.

Whether sampling may be employed to advantage in place of 100% inspection usually depends, of course, on the purpose for which inspection is made. The sampling tables here presented provide definite procedures for conducting inspections that have certain immediate purposes which are described in some detail. Through their provision for instituting a "screening" inspection whenever quality falls below an acceptable level, the procedures have been found in practice to enforce a program of controlling quality in process as the alternative to high inspection costs.

#### GENERAL FIELD OF APPLICATION

The sampling tables presented herewith have been developed for use in consumer or producer inspections of products composed of similar individual articles or pieces, where it is desired to have assurance of a definite degree of conformance to specification requirements with a minimum of expense.

The following paragraphs indicate the general conditions under which the tables are applicable, as well as some of the assumptions involved in their development.

*Acceptance Inspection of Lots*—The tables are intended for application in inspections whose immediate purpose is to determine the acceptability of individual lots of product.

By a lot will be meant a collection of individual pieces from a common source, possessing a common set of quality characteristics, and offered as a group for in-

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spection and acceptance at one time. These pieces may be parts, partial assemblies or finished units of product. For purposes of inspection, it is desirable that a lot be composed of pieces all of which have been produced under what are judged to be the same essential conditions. To this end, an attempt should be made to avoid grouping together batches of product that are likely to differ from one another in quality, because of differences in the raw materials used, or differences in manufacturing methods or conditions. For inspections made in a manufacturing plant, particularly where production is continuous as with conveyor systems, the time element may often be the deciding factor in fixing the size of lot, and such items as convenience in handling, and stocking or shipping facilities may make it desirable to take an hour's, a half-day's, or a day's production as the quantity to be considered as a lot for inspection purposes.

*Quantity Production*—Maximum advantage in the use of the tables may be expected for products produced more or less continuously on a quantity basis as distinguished from those produced intermittently on a small scale.

*Inspection by "Method of Attributes"*—Inspection by the "method of attributes"[5] is assumed. That is, each piece inspected is examined, gauged, or tested to determine whether it does or does not conform to the requirements imposed by specification.

For some characteristics, the requirements may be expressed as numerical limits to be met by the piece, such as maximum and minimum tolerance limits for a dimension, or the minimum tolerance limit for the illumination of a lamp. For others, the requirements may be expressed in less precise terms, and inspection may consist in observing whether the piece does or does not conform to the finish, appearance, color, etc., of say a standard sample, or to the grade of workmanship commonly understood by the phrase "accepted standards of good workmanship."

*Nondestructive Inspection*—The tables are applicable primarily to quality characteristics that may be inspected by nondestructive means, so that at any time it is entirely practicable to inspect every piece in the lot.

This limitation is a consequence of the inspection procedure adopted in the development of the tables, wherein complete inspection of individual lots is prescribed under certain conditions.

*Quality Measured by "Fraction Defective"*—The yardstick of quality used in the tables is "fraction defective" (or fraction nonconforming), that is, the ratio of the number of pieces that fail to conform to a specified requirement to the total number of pieces under consideration.

A piece of product that fails to meet the requirement for a characteristic is classed as nonconforming with respect to that characteristic, and for convenience is referred to as defective. Thus, a deviation from a specified requirement or

from accepted standards of good workmanship is termed a "defect." If, in the inspection of the "end illumination" of 1000 lamps, it were found that 10 of the lamps had illumination less than the minimum value specified, and the remaining 990 had illumination equal to or greater than the minimum value, we would say that 10 defects were observed, and the lot of 1000 was 1% defective (fraction defective, $p = 0.01$).

*Sampling Inspection*—The tables are applicable where, under normal conditions, it will be satisfactory to inspect only a portion of the pieces in the lot and to accept the lot if the inspection results for this sample of pieces meet certain criteria. This, in effect, imposes the condition that it is not the purpose of this inspection to make sure that each piece in the lot conforms to the requirements for the characteristic inspected.

Such a situation is common, for example, in the process inspection of component parts of product units, where it may be the purpose of inspection to make reasonably certain that the quality passing on to the next stage is such that no extraordinary effort will be expended on defective parts. This situation is also common for various characteristics of finished units of product, such as some adjustment and dimensional items, items of condition, finish and workmanship that can be covered by a "surface" inspection, as well as items for which 100% inspections or tests have been made previously during process or are to be made in subsequent operations before delivery to the ultimate consumer. Characteristics, whose conformance to specified requirements is of vital importance to the functional quality of the product, and for which 100% inspection is feasible, may not of course be candidates for sampling inspection.

*Acceptance Based on Observed Number of Defects*—The acceptance criterion used in the tables is a stated allowable number of defects in a sample of stated size.

If only one defect is allowed in a sample of $n$ pieces selected from a lot, then the "Allowable Defect Number" is 1 (referred to as the "Acceptance Number" in an earlier paper[3]). The criterion for the acceptance of a lot is the finding of a number of defects equal to or less than the Allowable Defect Number.

*Random Samples*—The theory used in the development of the tables assumes that each sample drawn from a lot is a random sample.

A random sample is one selected by a random operation,[6] such as would obtain if a number of physically similar chips, numbered to correspond to the pieces of product under consideration, were thoroughly mixed in a mixing bowl, and a number of them, equal to the desired sample size, were withdrawn to identify which pieces of product should be included in the inspection sample. When, in practice, there are indications that individual lots may be stratified in quality, it is of course best to select a "representative" sample, one such that each stratum or subportion of the lot is proportionately represented by a subsample that is selected by a random operation.

### INSPECTION PROCEDURES

Two distinct methods of inspection are employed—single sampling and double sampling. In single sampling, only one sample is permitted before a decision is reached regarding the disposition of the lot, and the acceptance criterion is expressed as an allowable defect number, $c$. In double sampling, a second sample is permitted if the first fails, and two allowable defect numbers are used—the first, $c_1$, applying to the observed number of defects for the first sample alone, and the second, $c_2$, applying to the observed num-
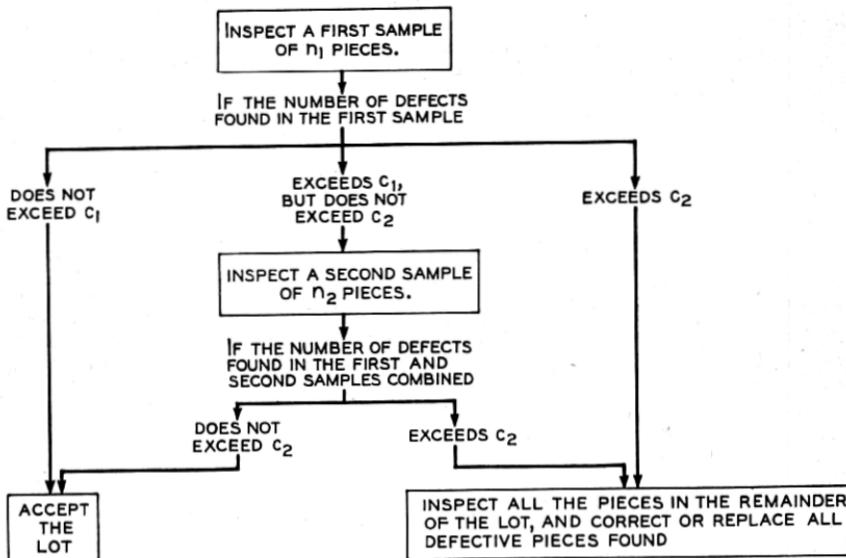


Fig. 1—Double sampling inspection procedure

ber of defects for the first and second samples combined. The specific procedures assumed in the development of the tables are as follows:

*Single Sampling Inspection Procedure*

(a) Inspect a sample of $n$ pieces.
(b) If the number of defects found in the sample does not exceed $c$, accept the lot.
(c) If the number of defects found in the sample exceeds $c$, inspect all the pieces in the remainder of the lot.
(d) Correct or replace all defective pieces found.

*Double Sampling Inspection Procedure*

(a) Inspect a first sample of $n_1$ pieces.
(b) If the number of defects found in the first sample does not exceed $c_1$, accept the lot.

(c) If the number of defects found in the first sample exceeds $c_2$, inspect all the pieces in the remainder of the lot.

(d) If the number of defects found in the first sample exceeds $c_1$ but does not exceed $c_2$, inspect a second sample of $n_2$ pieces.

(e) If the total number of defects found in the first and second samples combined does not exceed $c_2$, accept the lot.

(f) If the total number of defects found in the first and second samples combined exceeds $c_2$, inspect all the pieces in the remainder of the lot.

(g) Correct or replace all defective pieces found.

The double sampling procedure can, perhaps, be visualized more easily by reference to Fig. 1.

The theoretical development assumes that the inspection operation itself never overlooks a defect and that all defective pieces found, whether in samples or in the remainders of those lots that are inspected completely, will be corrected or replaced by conforming pieces.* Thus, lots that fail to be accepted by sample are assumed to be completely cleared of defects.

## PROTECTION AND ECONOMY FEATURES

When a consumer† adopts sampling inspection in place of 100 per cent inspection, he forgoes the opportunity of assuring himself that each piece of product will conform to requirements, and must choose a sampling plan that will provide a degree of protection against defective material that is consistent with his needs. This choice may be narrowed down by choosing some value of allowable per cent defective, and by deciding whether this allowable value should apply to a limited quantity of product such as a lot, or to the general output comprising a more or less steady flow of lots.

### *Two Kinds of Consumer Protection*

For both the single sampling and double sampling procedures outlined above, tables are developed for each of the following two kinds of consumer protection:

(a) *Lot Quality Protection*—in which there is prescribed (1) some chosen value of allowable per cent defective in a lot (Lot Tolerance Per Cent Defective), and also (2) some chosen value for the probability of accepting

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* While the mathematical solution assumes correction or replacement of defective pieces, it may be expedient practically to reject defective pieces and not replace them. The effect of following this, rather than the assumed procedure, involves differences in results too small to be of any practical consequence for the small values of per cent defective covered by the tables.

† The term "consumer" is used in the general sense of the recipient of the product after the inspection has been completed. This may, of course, be the ultimate consumer or his agent. However, in a manufacturing unit, if one department produces parts for use by a subsequent assembly department, the first department may be considered as the producer and the second, the consumer.

a submitted lot that has a per cent defective equal to the Lot Tolerance Per Cent Defective. This probability is termed the Consumer's Risk.

(*b*) *Average Quality Protection*—in which there is prescribed some chosen value of *average* per cent defective in the product *after inspection* (Average Outgoing Quality Limit, *AOQL*), that shall not be exceeded no matter what may be the level of per cent defective in the product submitted to the inspector.

Single sampling plans employing the first of these two types of protection were developed in an earlier paper.[3]   An extension of the underlying theory as applied to double sampling will be given here.   Sampling plans employing the second type of protection will likewise be covered for both the single sampling and double sampling procedures.*

The development of the second concept (*AOQL*) in 1927 was the result of a practical need in certain types of manufacturing process inspections, following considerable experience in the application of inspection procedures based on the first concept (Lot Tolerance and Consumer's Risk) which had been developed in 1924.   Both have since been used extensively.

### Minimum Amount of Inspection

For all of the four inspection plans covered, certain general principles, given in the earlier paper,[3] are used.

For each plan two requirements are imposed—first, that the plan shall provide a specified degree of protection (as covered by (a) or (b) above), and second, that the amount of inspection shall be a minimum for product of *expected* quality, subject to the degree of protection imposed by the first requirement.

The first requirement can be satisfied by a large number of different combinations of sample sizes and allowable defect numbers.   The second requirement dictates which one of these combinations shall be chosen, and requires a determination of the value of per cent defective to be normally expected in product submitted to the inspector. This expected value is referred to as the "process average" per cent defective.

For the inspection procedures here adopted, the amount of inspection that will be done *in the long run* is made up of two parts: (1) the number of pieces inspected in the samples and (2) the number of pieces inspected in the remainder of those lots that fail to be accepted by sample.   We are

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* An adaptation of these concepts to inspection by the method of variables, using the arithmetic mean as an acceptance criterion, is given in a doctorate thesis (Columbia University) by H. G. Romig, "Allowable Average in Sampling Inspection," March 1939, for the case of a normally distributed characteristic that is statistically controlled with respect to the standard deviation.

to find a solution that will minimize the amount of inspection for uniform product* of process average quality.

In single sampling, for each combination of sample size and allowable defect number, there will be a definite probability of exceeding the allowable defect number for a sample drawn from uniform product of process average quality. This probability is termed the Producer's Risk. It represents the chance of not accepting a lot on the basis of the sample findings under these postulated conditions, and for the adopted inspection procedure is thus the chance of inspecting the remainder of the pieces in the lot. The average (expected) amount of inspection per lot then equals the number inspected in the sampled portion plus the product of the Producer's Risk and the number of pieces in the remainder of the lot. This average value can be found for each combination, and the desired solution is obtained by choosing that combination of sample size and allowable defect number for which the average amount of inspection is smallest.

In double sampling, an entirely similar procedure is followed. Here, of course, we must consider the probability of taking a second sample when the first sample fails, and then the probability of failure for the second sample. The overall chance of failure constitutes the Producer's Risk for the complete double sampling plan.

No distinction is made here as to who actually inspects the remainders of those lots that fail to be accepted by sample. Whether the consumer does this inspection, or rejects such lots and thus in effect requires the producer to do it, will be considered immaterial. Interest will be centered only on the total amount of inspection done, recognizing that no matter which agency performs this service the cost will probably be reflected in the overall cost to the consumer.

It should be noted that, in the theoretical developments, the number of defects observed in a sample is not used to "estimate" the quality of the lot. Instead, it serves to indicate what action should be taken—whether the lot should be accepted, subjected to further sampling, or inspected completely—the entire process constituting a set of operations which when repeated over and over again produce a desired end result.

### Single Sampling—Lot Quality Protection

The solution for this plan was given in the earlier paper,[3] but will be reviewed briefly since certain of the principles and terms employed will be extended to the other three inspection plans.

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* By "uniform product" is meant one produced under statistically controlled conditions such that the probability of producing a defective piece remains constant at some definite value $p$. The solution thus provides for a minimum of inspection *if* quality is statistically controlled at a per cent defective level equal to the process average per cent defective.

Protection is defined by specifying values of,

(a) Lot Tolerance Per Cent Defective, the allowable per cent defective in a lot.

(b) Consumer's Risk, the probability of accepting a lot of tolerance quality.

If the allowable defect number is $c$, then the Consumer's Risk is the probability of finding $c$ or less defects in a random sample of $n$ pieces drawn from a lot of $N$ pieces in which the per cent defective is equal to the lot tolerance per cent defective. The tables presented are based on a Consumer's Risk of 0.10, a value found most useful in practice. For this choice, the chances of accepting a lot of worse than tolerance quality are less than 1 in 10.

TABLE 1

SOLUTION FOR A PARTICULAR CASE—SINGLE SAMPLING, LOT QUALITY PROTECTION

| $n$ and $c$ Combinations for Lot Size, 1000; Lot Tol. % Def., 3%; Cons. Risk, 0.10 | | Application to Product having Proc. Av. % Def. = 0.45% | | | | |
|---|---|---|---|---|---|---|
| Sample Size $n$ | Allowable Defect Number, $c$ | Prob. of Acceptance by Sample | Prob. of In-specting Re-mainder of Lot (Producer's Risk) | Av. No. of Pieces Inspected per Lot | | |
| | | | | In Sample | In Remain-der of Lot | Total |
| 75 | 0 | .713 | .287 | 75 | 265 | 340 |
| 125 | 1 | .891 | .109 | 125 | 95 | 220 |
| *170 | *2 | .*958 | *.042 | *170 | *35 | *205 |
| 210 | 3 | .984 | .016 | 210 | 13 | 223 |
| 250 | 4 | .994 | .006 | 250 | 5 | 255 |
| 290 | 5 | .998 | .002 | 290 | 1 | 291 |
| 325 | 6 | .999+ | .000+ | 325 | 0 | 325 |

* Plan involving minimum amount of inspection.

For each value of $c$, such as 0, 1, 2, etc., there is a unique value of sample size $n$, such that the probability of finding $c$ or less defects is 0.10. Any of these combinations of $n$ and $c$ will thus provide the desired consumer protection.

Now, for a given value of process average per cent defective, one of these combinations involves a smaller total amount of inspection than any of the others, as illustrated in Table 1. This combination of $n$ and $c$, which provides the desired solution, gives the most efficient adjustment be-tween the Consumer's Risk and Producer's Risk from the standpoint of minimizing inspection effort. Fig. 2 shows the relationship between these two risks for the conditions given in Table 1.

Curves providing a basis for solutions, such as that given in Table 1, have been published[3] for a Consumer's Risk of 0.10. The appended SL tables (Single Sampling Lot Quality Protection) provide for practical

use a complete set of such solutions for lot tolerance values from 0.5% to 10%. Each table is based on a particular value of lot tolerance per cent defective, and each solution, comprising a sample size, $n$, and allowable defect number, $c$, covers a range of lot sizes and a range of process average values.* The value of $n$ given in the tables is based on the largest lot size for each lot size range, and the value of $c$ corresponds to the mean lot size in each lot size range and to the mean value of process average in each
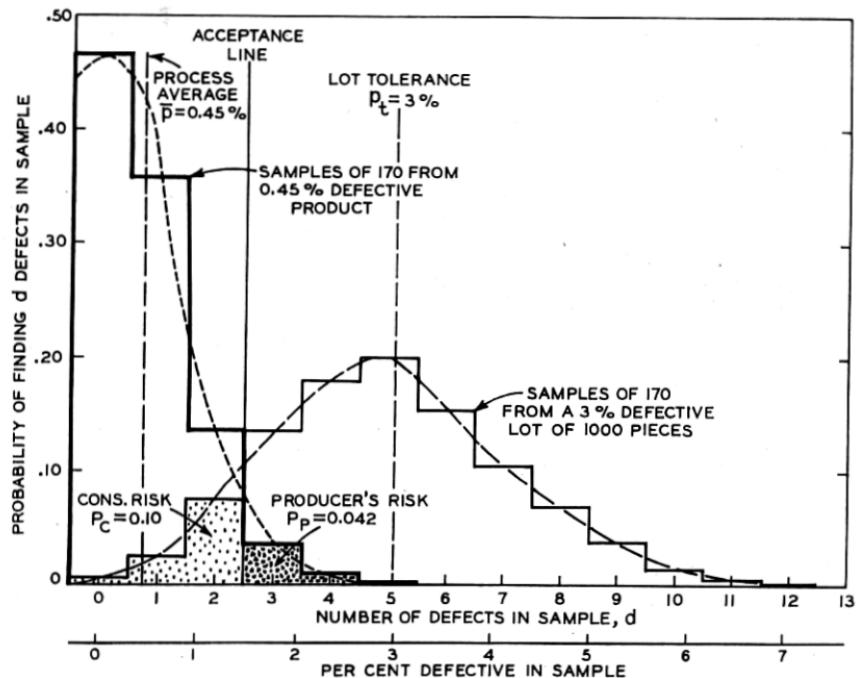


Fig. 2—Relation between consumer's risk and producer's risk

process average range, as indicated in Fig. 3. This procedure is followed for all of the sampling tables presented with this paper.

For the lot quality protection tables for both single and double sampling (SL and DL Tables), these choices are made to insure that, for the lot size range covered, the risk will not exceed the specified value (0.10) and to give *on the average*, for the process average range covered, the most economical plan. For reasons found advantageous in practice, sample sizes for samples of over 50 pieces are given to the nearest 5 units. For

* The extremely small process average range in the first column of each table has been specifically provided for those cases, increasingly common with long continued use of these inspection procedures, where the process average per cent defective is for all practical purposes zero.

extremely large samples, the size is given to the nearest 10.   This basis
of rounding sample sizes is followed for all of the sampling tables presented
with this paper.

On each table are listed values of AOQL to indicate the upper bound to
the long term average per cent defective in product after inspection that
may be reached under the most adverse conditions.
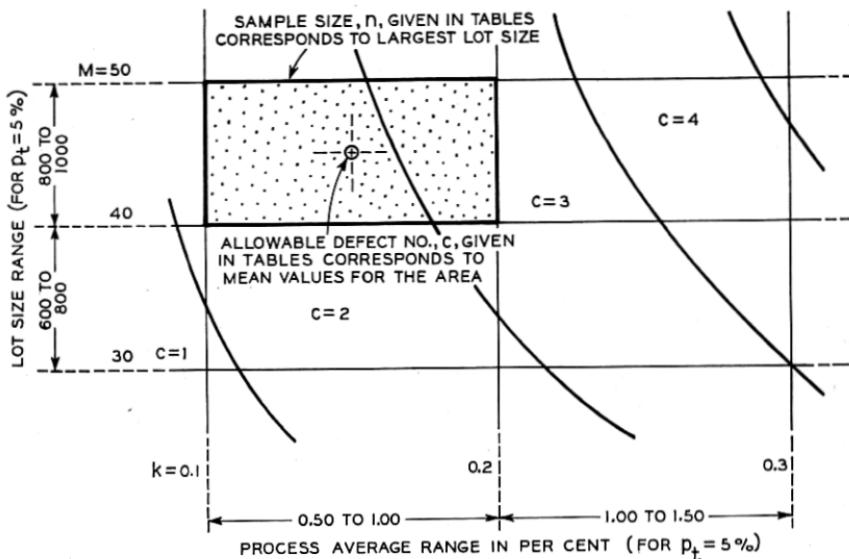


Fig. 3—Basis of choosing the $n$ and $c$ values given in the sampling tables

## DOUBLE SAMPLING—LOT QUALITY PROTECTION

The solution for this plan is carried out in substantially the same way
as for single sampling.   Protection is defined, as before, by specifying values
of lot tolerance per cent defective and Consumer's Risk.   As for the single
sampling procedure, a Consumer's Risk value of 0.10 is adopted.   In
double sampling, a lot is given a second chance of acceptance if the first
sample results are unfavorable, so that the Consumer's Risk is the sum
of two parts: (a) the probability of accepting a lot of tolerance quality for
the first sample, and (b) the probability of its acceptance for the second
sample, if the first fails.   For example, if the two allowable defect numbers,
$c_1$ and $c_2$, are 1 and 7, respectively, the Consumer's Risk is the sum of the
probabilities for all of the following possible ways in which these criteria
may be met, as shown in Table 2.

As in the case of single sampling, for any given process average value
there are a large number of acceptance criteria—pairs of $c_1$ and $c_2$ in this

case—for each of which sample sizes may be selected so as to give the desired Consumer's Risk of 0.10, but we wish to choose the combinations of $n_1$, $n_2$, $c_1$ and $c_2$ that will involve a minimum amount of inspection for product of process average quality. Furthermore, there are an unlimited number of ways of apportioning the Consumer's Risk between the first and second samples for each process average value. This latter factor introduces one more variable factor than will permit of a ready solution by other than trial and error methods, and accordingly an empirical choice has been made on the basis of a complete investigation of the relative practical advantages of several possible choices. Specifically, the solutions are based on an apportionment such that the risk for the first sample is equal to the risk for an independent sample equal in size to the first and second samples

### TABLE 2
COMPUTATION OF CONSUMER'S RISK—DOUBLE SAMPLING

| No. of Defects | | Probability for $n_1 = 88$, $n_2 = 154$ 5% Defective Lot of 1000 pieces |
|:---:|:---:|:---:|
| In 1st Sample | In 2nd Sample | |
| 0 | | .010 ⎫ Accepted by |
| 1 | | .048 ⎭ 1st Sample |
| 2 | 0, 1, 2, 3, 4 or 5 | .018 ⎫ |
| 3 | 0, 1, 2, 3 or 4 | .015 ⎪ |
| 4 | 0, 1, 2 or 3 | .007 ⎪ Accepted by |
| 5 | 0, 1 or 2 | .002 ⎪ 2nd Sample |
| 6 | 0 or 1 | .000 ⎪ |
| 7 | 0 | .000 ⎭ |
| Total............................ | | .100 Consumer's Risk |

combined. The use of an 0.06 risk in determining $n_1$ and $n_1 + n_2$ for given values of $c_1$ and $c_2$ provides a Consumer's Risk of almost exactly 0.10 over a considerable portion of the field covered by the tables, though in some areas a value as low as 0.056 is necessary. The "minimum" solutions for double sampling are, of course, conditioned by this choice.*

As shown in the Appendix, paired values of $c_1$ and $c_2$ that satisfy the condition of minimum inspection depend on (1) the tolerance number of defects for a lot, and (2) the ratio of the process average to the lot tolerance

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* Study of the effect of different apportionments of the Consumer's Risk on the average amount of inspection for product of process average quality indicates that considerably more than half of the 0.10 risk should be taken for small process average values and that less than half should be taken for large process average values. The single choice that was made provides a solution that closely approximates the true minimum over a large portion of the tables, and was considered justified by the great saving in computation effort. With this choice, the average amount of inspection per lot does not in general exceed the true minimum by more than 3 to 5% although for extremely low process average values the excess may be as much as 15%.

per cent defective.   These values have been determined by trial and error and form the basis of the $c_1\,c_2$ zones given in Fig. 7 of the Appendix.

The appended DL tables (Double Sampling Lot Quality Protection) provide a complete set of solutions using paired values of $c_1$ and $c_2$ determined from Fig. 7.   These tables are constructed on the same principles as the single sampling tables described above.

### SINGLE SAMPLING—AVERAGE QUALITY PROTECTION

The solution for this plan considers the degree to which the entire inspection procedure screens out defects in the product submitted to the inspector.   Lots accepted by sample undergo a partial screening through the elimination of defects found in samples.   Lots that fail to be accepted
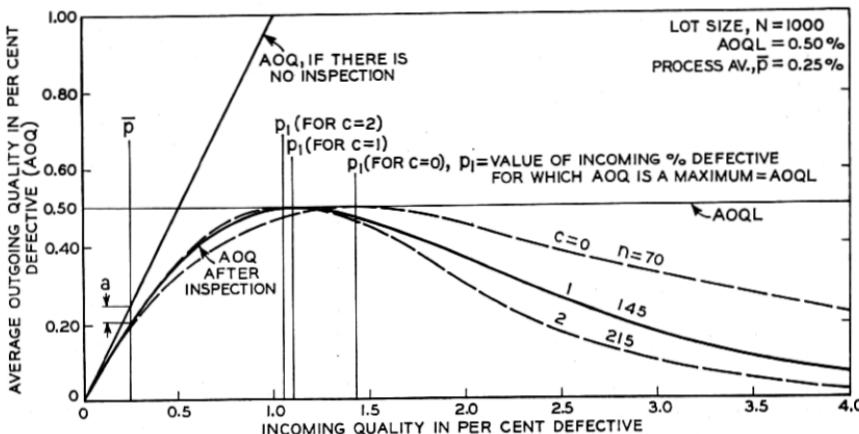


Fig. 4—Relationship between incoming quality, outgoing quality and *AOQL*

by sample are completely cleared of defects.   The overall result is some average per cent defective in the product as it leaves the inspector, termed the "average outgoing quality," which depends on the level of per cent defective for incoming product and the proportion of total defects that are screened out.

The solid curve of Fig. 4 shows how the average outgoing quality varies for different values of incoming quality for a lot size of $N = 1000$, a sample size of $n = 145$ and an allowable defect number of $c = 1$.   The curve is based on the concept of incoming product of uniform quality treated mathematically as an homogeneous universe.   As the level of incoming per cent defective gets higher and higher, more and more lots are completely inspected.   In turn, the average outgoing per cent defective increases, reaches a maximum value (0.50%, in Fig. 4), and then falls off as a result of rapid increase in the amount of screening.   This maximum value is termed the average outgoing quality limit (AOQL).

For this plan, protection is defined by specifying a definite value of AOQL. For each possible value of $c$ such as 0, 1, 2, etc. there is a unique value of sample size that will give the specified value of AOQL. This is illustrated in Fig. 4. Any of these combinations of $n$ and $c$ provide the desired protection, and as for the lot quality protection plans, we choose that combination of $n$ and $c$ that gives a minimum amount of inspection for uniform product of process average quality.

In the Appendix it is shown that the allowable defect number satisfying the condition of minimum inspection is dependent on two factors (1) the number of defects per lot for process average quality, and (2) the ratio of the process average per cent defective to the AOQL value. Fig. 9 of the Appendix defines zones of allowable defect numbers for which the average amount of inspection is a minimum.

The appended SA tables (Single Sampling Average Quality Protection) provide a complete set of minimum inspection solutions for AOQL values from 0.1% to 10%. The choice of $n$ and $c$ for each solution in the tables is based on the procedure of Fig. 3 (using $c$ zones given by Fig. 9), to insure that the AOQL value over the area in question will not exceed the specified value and to give on the average for this area the most economical plan.

On each table are given values of lot tolerance per cent defective for a Consumer's Risk of 10%. These values are found useful in practice since it is often desirable to know the degree of protection afforded to individual lots.

### Double Sampling—Average Quality Protection

The solution for double sampling differs from that for single sampling in that no simple relation has been found that gives directly the sample sizes that will result in a specified value of AOQL for a given lot size. This, together with the lack of simple relations for determining the choice of allowable defect numbers ($c_1$ and $c_2$) that provide a minimum solution, has necessitated an empirical choice, the consequence of which is much the same as for the similar action taken in the solution of the problem of double sampling for lot quality protection.* Specifically, the interrelationship between $n_1$, $n_2$, $c_1$ and $c_2$ used in the latter case for a 10% Consumer's Risk is used again here and the solutions given are consequently minima that are contingent on this choice. An extensive trial and error investigation, using the underlying theoretical relations, leads to the conclusion that the degree to which the solutions given in these tables approach the true minima, is of the same order of magnitude as for the double sampling tables for lot quality protection.

The method of solution is essentially that illustrated by example in the

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* See footnote page 11.

Appendix. The pairs of values of $c_1$ and $c_2$ used in the solution are confined to those given in Fig. 7 of the Appendix. For each of these pairs of $c_1$ and $c_2$, sample sizes are determined, using the above mentioned relationship to a 10% Consumer's Risk, that will give the desired AOQL value. Of these several sets of $c_1$, $c_2$, $n_1$ and $n_2$, that one is selected which involves the least amount of inspection.

The appended DA tables (Double Sampling Average Quality Protection) provide a complete set of such minimum inspection solutions for AOQL values from 0.1% to 10%. The choice of $n_1$, $n_2$, $c_1$ and $c_2$ for each solution in the tables is based on the general procedure of Fig. 3 (using the zones given in Fig. 7) to insure that the AOQL value over the area in question will not exceed the specified value and to give on the average for this area the most economical plan.

As for the single sampling AOQL tables there are listed values of lot tolerance per cent defective for a Consumer's Risk of 10%. In this case, these values have entered directly into the solution as explained above.

## APPLICATION OF SAMPLING TABLES

In the above description of the sampling tables, attention has been confined to the inspection of a single characteristic. The tables are, however, equally applicable to a group of characteristics considered collectively provided defects with respect to these characteristics are of essentially the same seriousness and may, therefore, be considered additive. When such application is made, the per cent defective values given in the tables embrace all such defects collectively, and since more than one defect may occur on a single piece of product, any allowable defect number listed in the tables should, by agreement, be considered either as a "number of defective pieces" or as a "number of defects."

The sampling tables based on lot quality protection (Tables SL and DL) are perhaps best adapted to conditions where interest centers on each lot separately—for example, where the individual lot tends to retain its identity either from a shipment or a service standpoint. They have been found particularly useful in inspections made by the ultimate consumer or his purchasing agent for lots or shipments purchased more or less intermittently.

The sampling tables based on average quality protection (Tables SA and DA) are especially adapted for use where interest centers on the *average* quality of product after inspection rather than on the quality of each individual lot and where inspection is, therefore, intended to serve, if necessary, as a partial screen for defective pieces. The latter point of view has been found particularly helpful, for example, in consumer inspections of continuing purchases of large quantities of a product, and in manufacturing

process inspections of parts where the inspection lots tend to lose their identity by merger in a common storeroom from which quantities are withdrawn on order as needed.

Other things being equal the average amount of inspection for double sampling is less than for single sampling. Fig. 5* gives a direct comparison for the lot protection tables (SL and DL). The saving obtained by using double instead of single sampling is greatest for large lot sizes and low process averages. Over the area of the tables found most useful in practice (per-
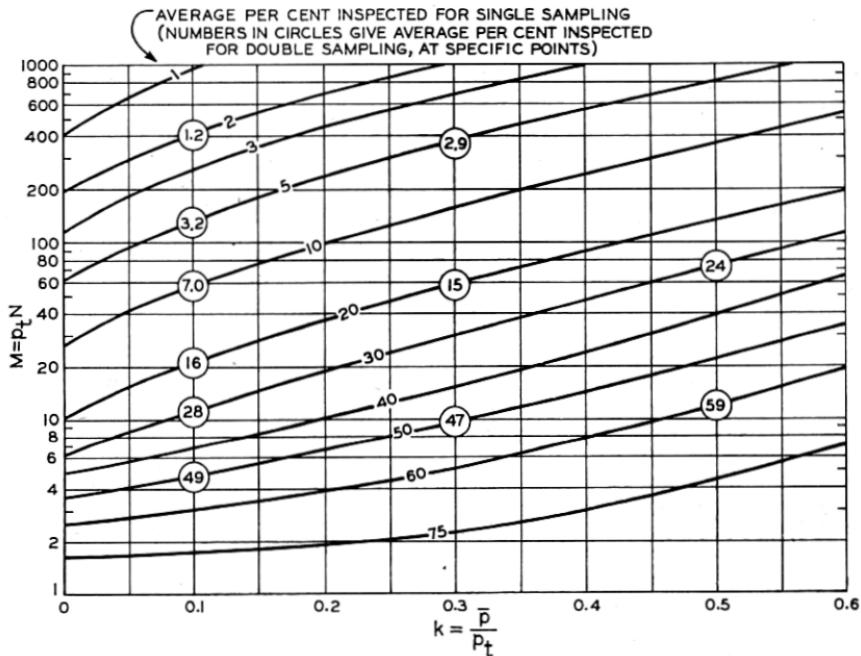


Fig. 5—Relative amount of inspection, double and single sampling

centage inspection less than 25 or 30%), the saving generally exceeds 10% and may be as great as 50%. The saving that results from using the double sampling instead of the single sampling AOQL tables (SA and DA) is of the same order of magnitude and may be estimated roughly from Fig. 5 by using the associated lot tolerance values listed in the AOQL tables, for a chosen set of AOQL, lot size, and process average values. While the amount of inspection is a major cost item, other costs associated with double

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* The curves and figures on this chart should be regarded as approximate. The mathematical relations involved are such that there exist unique values to be plotted on the $M$-$k$ plane when certain approximate probability equations, referred to in the appendix, are employed in the solution, but not when exact equations are employed.

sampling frequently throw the advantage to single sampling. Among the added costs are those associated with interruption of work, extra handling of product, etc. incidental to the selection of an independent second sample. Aside from these considerations, it is common to find a psychological preference for double sampling. This appears to be associated with the tendency to look with favor on any plan that permits a "second chance" to make good, particularly when an initial failure is of a marginal character.

Given a specific problem of replacing 100% screening inspection by a sampling inspection, the first step is to decide on the type of protection desired, to select the desired limit of per cent defective—lot tolerance or AOQL value—for that type of protection, and to choose between single and double sampling. This results in the selection of one of the appended tables. The second step is to determine whether the quality of product is good enough to warrant the introduction of sampling. The economies of sampling will be realized, of course, only insofar as the per cent defective in submitted product is such that the acceptance criteria of the selected sampling plan will be met. A statistical analysis of past inspection results should first be made, therefore, in order to determine existing levels and fluctuations in the per cent defective for the characteristic or the group of characteristics under consideration. This provides information with respect to the degree of control of quality as well as the usual level of per cent defective to be expected under existing conditions. From this and other information is to be determined a value for the "process average" per cent defective that should be used in applying the selected sampling table, if sampling is to be introduced.

The determination of the process average per cent defective is an engineering problem, essentially one of prediction, in which use is made of all available information—knowledge of manufacturing conditions past and anticipated, judgment as to what periods of the past, if any, may be taken as representative of the future, results of analyses showing uniformity and level of per cent defective for such past periods, etc. The application of "control chart" analysis[1,7] to past data is especially recommended.* If

---

* The following procedure has been used with general success. Tabulate the observed values of fraction defective, $p$, for at least 25 immediately preceding lots (or groups of lots, say by days or weeks, if $p$ is very small), excluding lots that are nonrepresentative for known reasons, and apply the control chart test to the observed values of $p$. If the data show statistical control, and if there are grounds for believing that future manufacturing conditions will be essentially the same as those of the past, use the average of the observed values of $p$ as the process average value, $\bar{p}$. If lack of statistical control is shown, replace values of $p$ that are beyond $\pm 3\sigma$ control limits[1,7] by values corresponding to $\pm 2\sigma$ control limits (where $\sigma = \sqrt{\bar{p}(1-\bar{p})/n}$). Compute a corrected average value of $p$, in which the individually corrected values are used in place of the corresponding observed values. Unless other conflicting evidence predominates, use this corrected value as a tentative process average value, until such time as a revision appears warranted on the basis of new evidence.

the process average value thus determined is well within the range of process average values listed in the selected sampling table then sampling can advantageously be introduced. If it is beyond this range, it would be quite satisfactory from a protection standpoint to use the last process average column of the selected table but the sampling plan itself would force rejection or a screening inspection of such a large proportion of the lots that the introduction of sampling probably would not pay. If the process average value is but poorly estimated, the amount of inspection will be somewhat larger than need be but the specified degree of protection will still be realized. Where there is uncertainty it is better to overestimate than to underestimate the process average value since, for a given magnitude of error, a lesser amount of excess inspection will thereby be incurred.

It should be especially noted that the tables may be safely applied whether quality is well controlled or not. If, for example, the usual level of per cent defective is well within the range of process average values listed in the selected table but individual lots are frequently well outside this range, the sampling plan will usually permit acceptance by sampling while quality is good but force 100% inspection when it is bad.

Experience with the tables indicates that where the procedures are used by a manufacturer within his own organization or by a consumer who rejects lots that are not accepted by sample, the general plan forces corrective action whenever quality becomes poorer than normally expected. The attendant increase in overall inspection costs provides a compelling argument, in a language well understood by all, for determining the cause of trouble in the manufacturing process and for instituting measures for eliminating it as speedily as possible. Thus, while the inspection procedures have as their immediate purpose the provision of a curative technique whereby product already made is cleared of abnormal proportions of defects, they are found by experience to enforce the adoption of a preventive technique—one that exerts economic pressure to track down and remove causes of abnormal quality variations, thus enforcing control of quality in the process and assuring better health in the product of tomorrow. Because of these factors the long term average outgoing per cent defective may rarely be expected to exceed half the AOQL value associated with the inspection plan in use.

Quality control is achieved most efficiently, of course, not by the inspection operation itself but by getting at causes.[6] It may be expedited by carrying out regular statistical control analyses of the cumulative results of sampling inspection—preparing quality control charts[1,7] for "per cent defective" with subgrouping of results on a lot-by-lot, a day-by-day, or a week-by-week basis—and making the findings available to those directly responsible for manufacturing processes.

Where a steady supply of product is offered for acceptance on a lot-by-lot basis, the use of these sampling procedures and tables, together with continuing control chart analyses of the inspection results obtained therefrom, have been found to provide a balanced and economical inspection program.

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## MATHEMATICAL APPENDIX

### FUNDAMENTAL PROBABILITY FORMULAS

The mathematical probabilities used in the solutions are based on equations corresponding to one or the other of the following two sets of conditions:

(a) Sampling from a finite universe.
(b) Sampling from an infinite universe.

In relations involving the determination of the Consumer's Risk, the sample is considered as a sample from a lot of a finite number of pieces and probabilities are correspondingly based on (a). For all other relations in the solutions—involving the determination of the Producer's Risk, the determination of the average number of pieces inspected per lot, etc.— the sample is considered as a

sample from the general output of product—a source of supply—and probabilities are correspondingly based on (b).

### Finite Universe

The probability of finding $m$ defects in a random sample of $n$ units drawn from a finite universe (lot) of $N$ pieces in which the number of defects is $M = pN$, is given exactly by

$$P_{m,n,N,M} = \frac{1}{C_n^N} C_{n-m}^{N-M} C_m^M .$$

(1)

When $p < 0.10$, a good approximation to (1) is given by the $m + 1$st term of the expansion of the binomial, $\left[\left(1 - \dfrac{n}{N}\right) + \dfrac{n}{N}\right]^M$,

$$P_{m,n,N,M} \approx P_{m,\frac{n}{N},M} = C_m^M \left(1 - \frac{n}{N}\right)^{M-m} \left(\frac{n}{N}\right)^m .$$

(1')

When $p < 0.10$ and when $\dfrac{n}{N} < 0.10$, a good approximation to (1) is given by the $m + 1$st term of the Poisson exponential distribution,

$$P_{m,n,N,M} \approx P_{m,pn} = \frac{e^{-pn}(pn)^m}{m!} .$$

(1'')

These are general equations applicable for any fraction defective, $p$, but are used in this paper only for the specific case where $p = p_t$, the lot tolerance fraction defective, and where in turn $M = p_t N$.

The Consumer's Risk $P_C$, is the probability of meeting the acceptance criteria—$c$, for single sampling, and $c_1$ and $c_2$, for double sampling—in samples drawn from a lot of $N$ pieces containing exactly the tolerance number of defects $M = p_t N$.

For single sampling,

$$P_C = \sum_{m=0}^{m=c} P_{m,n,N,M} \quad \text{(when } p = p_t\text{)}.$$

(2)

For double sampling,

$$P_C = \sum_{m=0}^{m=c_1} P_{m,n_1,N,M} + P_{c_1+1,n_1,N,M} \sum_{m=0}^{m=c_2-c_1-1} P_{m,n_2,N-n_1,M-c_1-1}$$

$$+ P_{c_1+2,n_1,N,M} \sum_{m=0}^{m=c_2-c_1-2} P_{m,n_2,N-n_1,M-c_1-2} + \cdots$$

$$+ P_{c_2,n_1,N,M} P_{0,n_2,N-n_1,M-c_2} \quad \text{(when } p = p_t\text{)}.$$

(3)

Values of $P_C$ in equations (2) and (3) are given approximately by substituting $P_{m,\frac{n}{N},M}$ or $P_{m,pn}$ for $P_{m,n,N,M}$ throughout, in accordance with equations (1') and (1''), using $p = p_t$. The resulting equations will be referred to as (2'), (2''), (3') and (3''), respectively.

(2')
(2'')
(3')
(3'')

### Infinite Universe

The probability of finding $m$ defects in a random sample of $n$ pieces drawn from an infinite universe (general output of uniform product) in which the fraction defective is $p$, is given exactly by the $m + 1$st term of the expansion of the binomial, $[(1 - p) + p]^n$,

$$P_{m,n,p} = C_m^n (1 - p)^{n-m} p^m. \tag{4}$$

When $p < 0.10$, a good approximation to (4) is given by the $m + 1$st term of the Poisson exponential distribution,

$$P_{m,n,p} \approx P_{m,pn} = \frac{e^{-pn}(pn)^m}{m!}. \tag{4'}$$

The probability of meeting the acceptance criteria—$c$, for single sampling, and $c_1$ and $c_2$ for double sampling—in samples drawn from submitted product having a fraction defective of $p$, is termed the probability of acceptance, $P_a$. For single sampling,

$$P_a = \sum_{m=0}^{m=c} P_{m,n,p}. \tag{5}$$

For double sampling,

$$P_a = \sum_{m=0}^{m=c_1} P_{m,n_1,p} + P_{c_1+1,n_1,p} \sum_{m=0}^{m=c_2-c_1-1} P_{m,n_2,p} + P_{c_1+2,n_1,p} \sum_{m=0}^{m=c_2-c_1-2} P_{m,n_2,p}$$

$$+ \cdots + P_{c_2,n_1,p} P_{0,n_2,p}. \tag{6}$$

Values of $P_a$ in equations (5) and (6) are given approximately by substituting Poisson exponential probabilities, $P_{m,pn}$, for $P_{m,n,p}$ throughout in accordance with equation (4'). The resulting equations will be referred to as equations (5') and (6'), respectively. $\left.\begin{array}{r}(5')\\(6')\end{array}\right\}$

The Poisson exponential approximation is used in subsequent paragraphs wherever probabilities in sampling from an infinite universe apply. Tables[8] and charts[9, 10] are available from which these probability values (single term values, or cumulative values for "$c$ or less defects") may be read directly.* Figure 6 gives a cumulative probability chart for the Poisson exponential distribution, which is widely useful in the solutions involved.

The Producer's Risk, $P_P$, is the probability of failing to meet the acceptance criteria in samples drawn from product of process average ($\bar{p}$) quality. Using $p = \bar{p}$ in equations (5) and (6),

$$P_P = 1 - P_a \text{ (when } p = \bar{p}). \tag{7}$$

### LOT QUALITY PROTECTION

#### Single Sampling

Given: Lot Size ($N$), lot tolerance fraction defective ($p_t$), Consumer's Risk ($P_C = 0.10$), process average fraction defective ($\bar{p}$).

* In this work use was made of more complete tables, giving cumulative probabilities for $pn$ values up to 100, prepared by Office of the Switching Theory Engineer, Bell Telephone Laboratories.
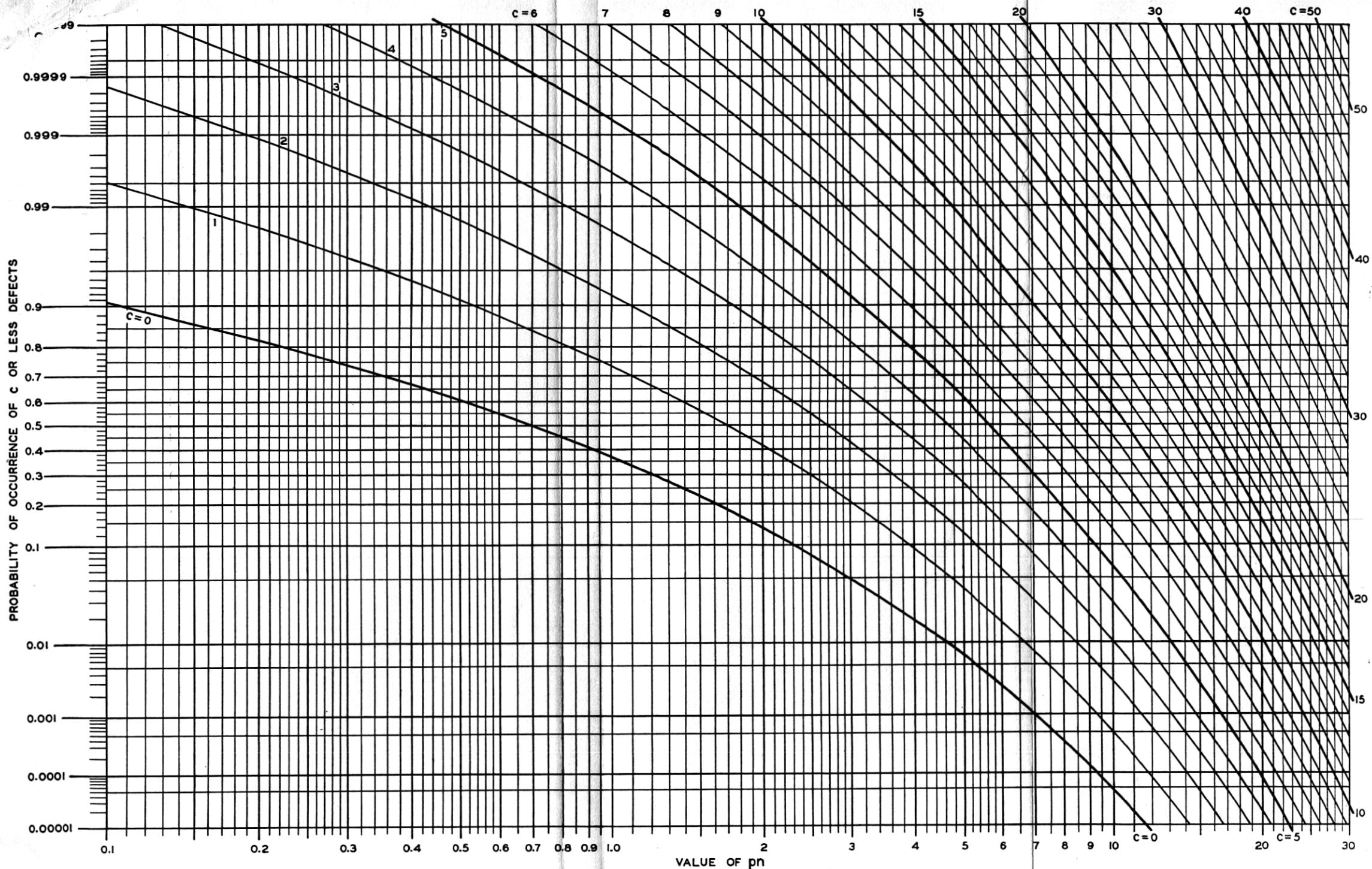
Fig. 6—Cumulative probability curves—Poisson exponential. For determining probability of occurrence of $c$ or less defects in a sample of $n$ pieces selected from an infinite universe in which the fraction defective is $p$ (A modification of chart given by Miss F. Thorndike $B. S. T. J.$, October 1926).

To find: Values of $n$ and $c$ that will minimize $\bar{I}$, the average number of pieces inspected per lot for product of process average ($\bar{p}$) quality.

The average number of pieces inspected per lot ($I$) for product of $p$ quality is given by

$$I = n + (N - n)(1 - P_a), \tag{8}$$

where $P_a$ is given by equation (5). Substituting the approximation of equation (5') gives

$$I = n + (N - n)\left(1 - \sum_{m=0}^{m=c} P_{m,pn}\right). \tag{8'}$$

$\bar{I}$ is a specific value of $I$ and is obtained from equation (8') by using $p = \bar{p}$. The value of $c$ that makes $\bar{I}$ a minimum may be read from the chart of Fig. 2 of the previous paper,[3] which uses coordinates of $M = p_t N$ and $k = \dfrac{\bar{p}}{p_t}$ and is based on $P_C = 0.10$. The corresponding sample size $n$ may be read from Fig. 3 of the previous paper[3] (based on equation (2')), from Fig. 6 if appropriate, or by direct computation from equation (2), (2'), or (2''), using $P_C = 0.10$.

### Double Sampling

Given: Lot size ($N$), lot tolerance fraction defective ($p_t$), Consumer's Risk ($P_C = 0.10$), process average fraction defective ($\bar{p}$).

To find: Values of $n_1$, $n_2$, $c_1$, $c_2$ that will minimize $\bar{I}$.

The average number of pieces inspected per lot ($I$) for product of $p$ quality is given by

$$I = n_1 + n_2\left(1 - \sum_{m=0}^{m=c_1} P_{m,pn_1}\right) + (N - n_1 - n_2)(1 - P_a), \tag{9}$$

where $P_a$ is determined from equation (6').

$\bar{I}$ is a specific value of $I$ and is obtained from equation (9) by using $p = \bar{p}$. As outlined on page 11, the pair of values of $c_1$ and $c_2$ that makes $\bar{I}$ a minimum is determined by trial and error, conditioned by the choice that the Consumer's Risk of 0.10 be divided between the first and second samples so that the "initial risk" for the first sample is 0.06. Figure 7 gives such pairs of $c_1$, $c_2$ values, corresponding to values $M = p_t N$ and $k = \dfrac{\bar{p}}{p_t}$.

For the selected apportionment of Consumer's Risk, the sample sizes $n_1$ and $n_2$ may be determined approximately from the following equations, which are based on equation (1'),

$$\left.\begin{aligned}
0.06 &= \sum_{m=0}^{m=c_1} C_m^M \left(1 - \frac{n_1}{N}\right)^{M-m}\left(\frac{n_1}{N}\right)^m, \\
0.06 &= \sum_{m=0}^{m=c_2} C_m^M \left(1 - \frac{n_1 + n_2}{N}\right)^{M-m}\left(\frac{n_1 + n_2}{N}\right)^m.
\end{aligned}\right\} \tag{10}$$

Figure 8 based on these equations gives $p_t n_1$ and $p_t(n_1 + n_2)$ values associated with $c_1$ and $c_2$ for a given value of $M = p_t N$, and thus provides the desired values of $n_1$ and $n_2$.
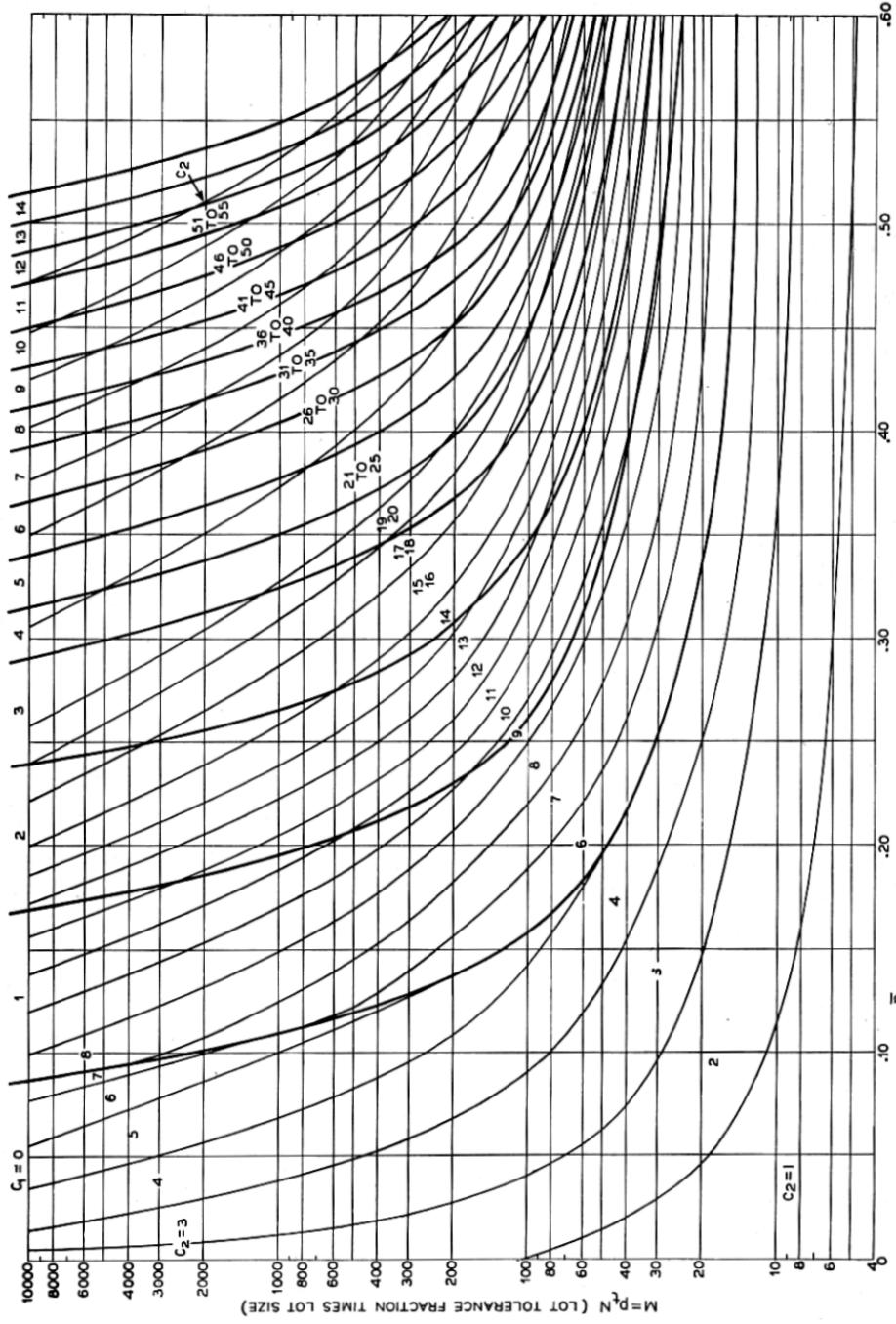
Fig. 7 — Chart for determining allowable defect numbers, $c_1$ and $c_2$—lot tolerance protection. Consumer's Risk 0.10.
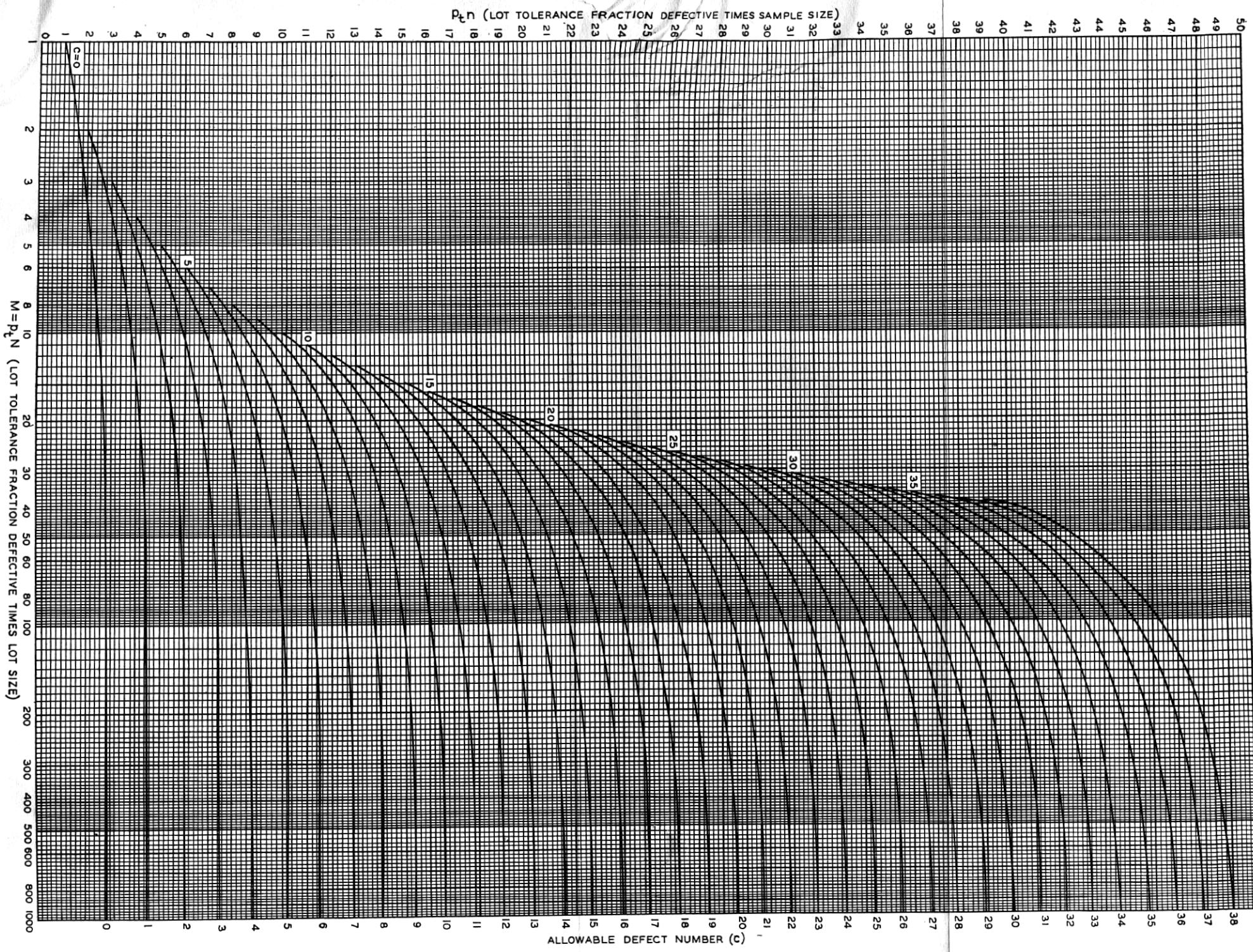
Fig. 8—Curves for determining sample sizes, $n$ and $n_a$—lot tolerance protection, Consumer's Risk, 0.10.

The use of $P = 0.06$ for determining $n_1 + n_2$ corresponding to $c_2$ as well as for determining $n_1$ corresponding to $c_1$ results in a Consumer's Risk of approximately 0.10, as may be checked by writing the Consumer's Risk equation (3) as follows:

$$
P_C = \sum_{m=0}^{m=c_1} P_{m,n_1,N,M} + \sum_{m=0}^{m=c_2} P_{m,n_1+n_2,N,M} - \left( P_{0,n_1,N,M} \sum_{m=0}^{m=c_2} P_{m,n_2,N-n_1,M} \right.
$$

$$
+ P_{1,n_1,N,M} \sum_{m=0}^{m=c_2-1} P_{m,n_2,N-n_1,M-1} + \cdots
$$

$$
\left. + P_{c_1,n_1,N,M} \sum_{m=0}^{m=c_2-c_1} P_{m,n_2,N-n_1,M-c_1} \right). \qquad (11)
$$

The sum of the first two terms is 0.12 and the sum of the terms in parentheses is of the order of 0.02.

## AVERAGE QUALITY PROTECTION

### General Relations

When the fraction defective in submitted product is $p$, the average quality after inspection $(p_A)$ is given by

$$
p_A = p \frac{N-I}{N} \qquad (12)
$$

when all defective pieces found are replaced. If defective pieces found are removed but not replaced,

$$
p_A = p \frac{N-I}{N-pI}, \qquad (12')
$$

the factor $pI$ representing the average number of defective pieces removed. In deriving the tables, equation (12) has been used. The error in $p_A$ resulting from the use of (12) rather than (12') is $\frac{pI}{N}$, which is generally small.

The average outgoing quality limit $(p_L)$ is the maximum value of $p_A$ that will result under any sampling plan, considering all possible values of $p$ in the submitted product. The value of $p$ for which this maximum value of $p_A$ occurs is designated as $p_1$, hence

$$
p_L = p_1 \frac{N-I}{N}. \qquad (13)
$$

The value of $p_1$ for which $p_A = p_L$ may be determined by differentiating equation (12) with respect to $p$, equating to 0, and solving for $p$, that is

$$
\frac{dp_A}{dp} = \frac{N-I}{N} - \frac{p}{N}\frac{dI}{dp} = 0. \qquad (14)
$$

### Single Sampling

Given: Lot size $(N)$, AOQL $(p_L)$, process average fraction defective $(\bar{p})$.
To find: Values of $n$ and $c$ that will minimize $\bar{I}$.

The average quality after inspection ($p_A$), after substituting in equation (12) the value of $I$ given in equation (8′), is obtained from the relation

$$p_A = p \frac{(N - n)}{N} \sum_{m=0}^{m=c} \frac{e^{-pn}(pn)^m}{m!} . \tag{15}$$

Differentiating with respect to $p$ in accordance with equation (14), gives,

$$\frac{dp_A}{dp} = \frac{(N - n)}{N} \left[ \sum_{m=0}^{m=c} \frac{e^{-pn}(pn)^m}{m!} - \frac{e^{-pn}(pn)^{c+1}}{c!} \right]. \tag{16}$$

Equating to zero and solving for $p$, gives the value of $p = p_1$ that makes $p_A$ a maximum; i.e., $p_A = p_L$.

Let $p_1 n = x$; the particular case covered by equation (15) where $p = p_1$, and $p_A = p_L$ may then be expressed as

$$p_L = \frac{N - n}{Nn} x \sum_{m=0}^{m=c} \frac{e^{-x} x^m}{m!} , \tag{17}$$

or

$$p_L = y \left( \frac{1}{n} - \frac{1}{N} \right), \tag{18}$$

where

$$y = x \sum_{m=0}^{m=c} \frac{e^{-x} x^m}{m!} . \tag{19}$$

Similarly, equation (16) equated to zero becomes, after substituting $p_1 n = x$ and simplifying,

$$\sum_{m=0}^{m=c} \frac{e^{-x} x^m}{m!} - \frac{e^{-x} x^{c+1}}{c!} = 0. \tag{20}$$

Substituting in equation (19) the second term of equation (20) for the summation term gives

$$y = \frac{e^{-x} x^{c+2}}{c!} . \tag{21}$$

These relations* provide a basis for determining the values of $x$ and $y$, corresponding to specific values of $c$, listed in Table A. The values of $x$ for $c = 0$ to 30 were determined from equation (20) using Newton's Method of Approximation. The values of $x$ for $c = 31$ to 40 were estimated on the basis of successive differences. The listed values of $y$ are averages of the two values determined from equations (19) and (21), which differ slightly because values of $x$ were determined to only two decimal places.

* Reduction of the mathematical relations to this simplified form and the determination of several $x$ and $y$ values, were contributed by Dr. Walter Bartky of the University of Chicago (when he was associated with the Western Electric Co.) shortly after the development of the $AOQL$ concept and the preparation of preliminary $AOQL$ double sampling tables. The methods and work of computing the values in Table A were contributed by Mr. George C. Campbell, formerly of the Bell Telephone Laboratories.

## TABLE A
### VALUES OF $x$ AND $y$ FOR GIVEN VALUES OF $c$

Used in equation (18) for determining $p_L$ when $N$, $n$ and $c$ are given, or in equation (22) for determining $n$ when $N$, $c$ and $p_L$ are given

| $c =$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $x =$ | 1.00 | 1.62 | 2.27 | 2.95 | 3.64 | 4.35 | 5.07 | 5.80 | 6.55 | 7.30 | 8.06 |
| $y =$ | 0.3679 | 0.8408 | 1.372 | 1.946 | 2.544 | 3.172 | 3.810 | 4.465 | 5.150 | 5.836 | 6.535 |

| $c =$ | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| $x =$ | 8.82 | 9.59 | 10.37 | 11.15 | 11.93 | 12.72 | 13.52 | 14.32 | 15.12 | 15.92 |
| $y =$ | 7.234 | 7.948 | 8.677 | 9.404 | 10.12 | 10.87 | 11.63 | 12.38 | 13.14 | 13.88 |

| $c =$ | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|
| $x =$ | 16.73 | 17.54 | 18.35 | 19.17 | 19.98 | 20.81 | 21.63 | 22.46 | 23.29 | 24.13 |
| $y =$ | 14.66 | 15.42 | 16.18 | 16.97 | 17.73 | 18.54 | 19.30 | 20.11 | 20.91 | 21.75 |

| $c =$ | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|---|---|---|---|---|---|---|---|---|---|---|
| $x =$ | 24.96 | 25.81 | 26.65 | 27.50 | 28.35 | 29.21 | 30.06 | 30.93 | 31.79 | 32.66 |
| $y =$ | 22.54 | 23.40 | 24.22 | 25.08 | 25.94 | 26.83 | 27.68 | 28.62 | 29.50 | 30.44 |

The value of $c$ that minimizes $\bar{I}$ (equation (8'), using $p = \bar{p}$), is given directly by Fig. 9, which uses coordinates of $\bar{M} = \bar{p}N$ and $\bar{k} = \bar{p}/p_L$. The curves bounding the $c$ zones on Fig. 9 were obtained directly from relations between equations (18) and (8'), using $p = \bar{p}$, that define values of $\bar{M}$ and $\bar{k}$ such that $\bar{I}$ is the same for $c$ and $c + 1$.

The value of $n$, corresponding to the value of $c$ given on Fig. 9, is determined from equation (18), expressed as

$$n = \frac{yN}{p_L N + y}. \qquad (22)$$

Example: Given: $N = 750$, $p_L = 0.01$, $\bar{p} = 0.004$.

To Find: $n$ and $c$.

Solution: $\bar{M} = \bar{p}N = (0.004)\,(750) = 3$; $\bar{k} = \dfrac{\bar{p}}{p_L} = \dfrac{0.004}{0.01} = 0.4$.

Consulting Fig. 9, for $\bar{M} = 3$ and $\bar{k} = 0.4$, read $c = 1$.

From Table A, for $c = 1$, read $y = 0.8408$.

From equation (22), $n = \dfrac{(0.8408)\,(750)}{(0.01)\,(750) + 0.8408} = 75.6$.

Sampling Plan: $n = 76$, $c = 1$.

### Double Sampling

Given: Lot Size ($N$), AOQL ($p_L$), process average fraction defective ($\bar{p}$).

To find: Values of $n_1$, $n_2$, $c_1$ and $c_2$ that will minimize $\bar{I}$.

The average quality after inspection ($p_A$) is found by substituting in equation (12), the value of $I$ given in equation (9).

$$p_A = \frac{p}{N}\left[(N - n_1)\sum_{m=0}^{m=c_1} P_{m,pn_1} + (N - n_1 - n_2)\left(P_{c_1+1,pn_1}\sum_{m=0}^{m=c_2-c_1-1} P_{m,pn_2}\right. \right.$$

$$\left. \left. + \cdots + P_{c_2,pn_1}P_{0,pn_2}\right)\right]. \qquad (23)$$

Differentiating equation (23) with respect to $p$ and equating to 0, in accordance with equation (14), and solving for $p$, gives the value of $p = p_1$ that makes $p_A$ a maximum; i.e., $p_A = p_L$. The resulting equation is not reproduced here since
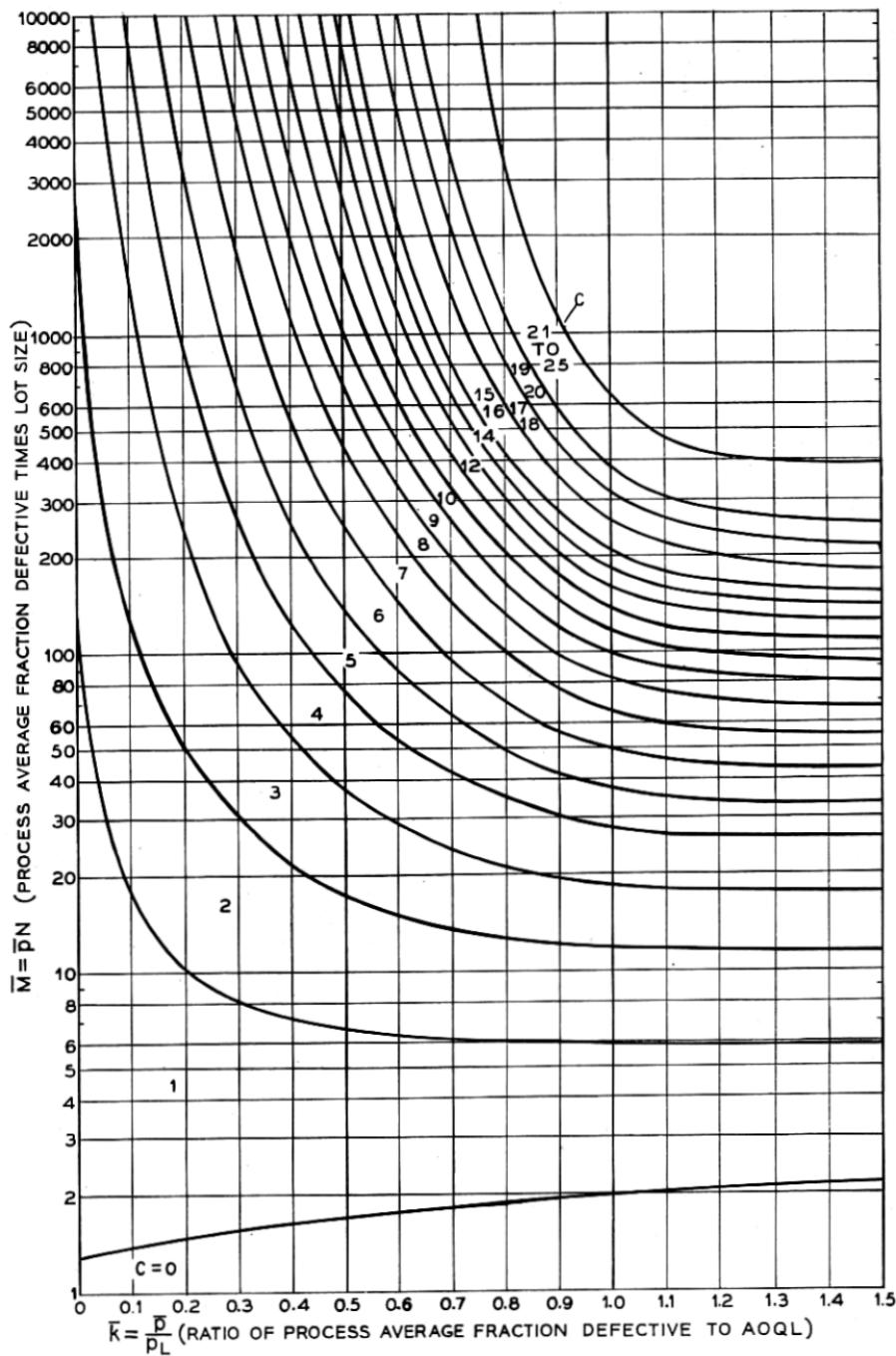
Fig. 9—Chart for determining allowable defect number—AOQL protection

it can be readily solved only for small values of $c_1$ and $c_2$. It is usually easier, particularly for the larger values of $c_1$ and $c_2$, to determine the maximum value of $p_A$ (i.e., $p_L$) by trial and error, using work charts for estimating the region in which $p_1$ will be found.

The procedure used in preparing the tables and in finding the solution for a specific set of conditions is probably best illustrated by working out an actual example. In this procedure, use is made of known relationships between $p_t$ and $p_L$ values as given by the DL tables, where an initial risk of 0.06 and a Consumer's Risk of 0.10 are associated with $p_t$ as outlined on page 11. For a given lot size, a work chart is prepared on which points corresponding to associated $p_L$ and $p_t$ values are plotted for each pair of $c_1$, $c_2$ values given in Fig. 7. A line drawn through all points for a single pair, such as $c_1 = 0$, $c_2 = 1$, indicates what $p_t$ value should be associated with any $p_L$ value specified. Fig. 10 indicates the nature of the work charts and the following example illustrates its use.
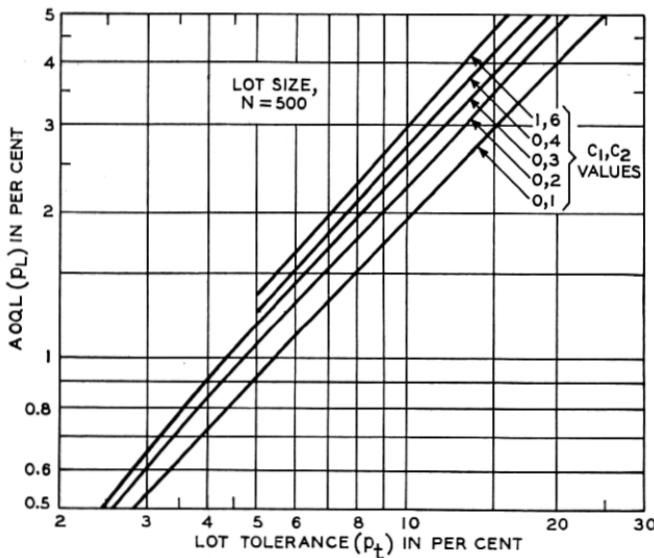


Fig. 10—Work chart giving $p_t$ values corresponding to $p_L$ values for given pairs of $c_1$, $c_2$ values—lot size, $N = 500$

Example: Given: $N = 500$, $p_L = .01$, $\bar{p} = .004$.

To find: $n_1$, $n_2$, $c_1$ and $c_2$ that will minimize average amount of inspection per lot. (Condition: For the associated lot tolerance value, $p_t$, the initial risk is 0.06 and the Consumer's Risk $P_C = 0.10$).

Solution: *Step 1*—Consult work chart, Fig. 10 for $N = 500$. Try $c_1 = 0$, $c_2 = 1$, and corresponding to $p_L = .01$, read $p_t = .054$.

*Step 2*—To determine if first choice of $c_1$, $c_2$ was the best.

$$M = p_t N = 0.054\,(500) = 27;\ k = \frac{\bar{p}}{p_t} = \frac{0.004}{0.054} = 0.074.$$

Consult Fig. 7, giving best $c_1$, $c_2$ values for given $M$ and

$k$ values.  Corresponding to $M = 27$, $k = 0.074$, read $c_1 = 0$, $c_2 = 2$.  Hence the first choice was not the best.

*Step 3*—Similar to Step 1.  Consult work chart, Fig. 10. For $c_1 = 0$, $c_2 = 2$, corresponding to $p_L = 0.01$, read $p_t = .047$.

*Step 4*—Similar to Step 2.  $M = p_t N = .047\,(500) = 23.5$; $k = \dfrac{\bar{p}}{p_t} = 0.085$.  Consult Fig. 7 and corresponding to $M = 23.5$, $k = 0.085$, read $c_1 = 0, c_2 = 2$.  This agrees with the choice in Step 3 and gives desired solution.

*Step 5*—To determine $n_1$ and $n_2$ for $c_1 = 0$, $c_2 = 2$.  On Fig. 8, corresponding to $M = 23.5$, for $c_1 = 0$, read $p_t n_1 = 2.67$ and for $c_2 = 2$, read $p_t\,(n_1 + n_2) = 5.60$.  Since per Step 3, $p_t = .047$, $n_1 = 57$, $n_1 + n_2 = 119$ and $n_2 = 62$.

*Sampling Plan.* $n_1 = 57$, $n_2 = 62$, $c_1 = 0$, $c_2 = 2$.  (Rounding these values of $n$ to the nearest 5 in accordance with the practice used in preparing the tables, gives $n_1 = 55$, $n_1 + n_2 = 120$, $n_2 = 65$, the values shown in Table DA-1 for $N = 401$–$500$, $\bar{p} = 0.21$–$0.40\%$.)

### NATURE AND MAGNITUDE OF ERRORS

Each sampling plan (combination of $n$ and $c$ values for single sampling, and of $n_1$, $n_2$, $c_1$ and $c_2$ values for double sampling) in the tables constitutes a solution for a range of process average values and a range of lot sizes.  The following paragraphs give information regarding the magnitude of errors, associated with these solutions, that may be present because of the following two factors:

(1) Approximate equations and curves derived therefrom were used in place of exact equations over most areas of the tables, in order to minimize computative effort.
(2) The sample sizes, $n_1$ and $n_1 + n_2$, listed in the tables represent computed values rounded to the nearest unit for $n = 50$ or less, rounded to the nearest 5 for $50 < n < 1000$, and rounded to the nearest 10 for $n > 1000$.

*Effect of Approximations*—The percentage error in the Consumer's Risk value of 0.10, corresponding to lot tolerance values listed in the tables, attributable to the use of approximate equations and curves derived therefrom, is on the average about $3\%$ and should not exceed $7\%$.  The percentage error in the $AOQL$ values, listed in the tables, attributable to the use of approximate relations involving the Poisson exponential rather than the binomial distribution, is on the average about $4\%$ and should not exceed $12\%$.  In a large number of exploratory checks for both single and double sampling, it was found in every instance that the Consumer's Risk and the $AOQL$ values derived from approximate equations were larger than the corresponding exact values.  The largest error observed in the Consumer's Risk for single sampling occurred when, instead of 0.10, the exact relation gave a value of 0.0937.  Similarly the largest error in the $AOQL$ occurred in single sampling when, instead of 0.0883, the exact relation gave a value of 0.0786.  The observed errors in double sampling were of the same order of magnitude.

*Effect of Rounding*—The use of rounded values of $n$, $n_1$ and $n_2$ gives values of Consumer's Risk other than exactly 0.10. However each sampling plan lists sample sizes based on the largest lot size in the corresponding lot size range. As a result, the Consumer's Risk associated with the $p_t$ value designated at the top of the Lot Tolerance tables does not exceed 0.10 except in a few isolated cases, where the risk may be as high as 0.12 for the largest lot size. Likewise, the *AOQL* value for any sampling plan in the *AOQL* tables does not exceed the value designated at the top of each table except in a few isolated cases, where the error due to rounding may be as much as 10% of the designated value for the largest lot size.

The Consumer's Risk value of 0.10 and the *AOQL* values listed in the tables, are therefore with few exceptions, upper bounds that will not be exceeded in the application of the tables.

## NOMENCLATURE

$N$  Number of pieces in lot.

$n$  Number of pieces in sample.

$n_1$  Number of pieces in first sample.

$n_2$  Number of pieces in second sample.

$c$  Allowable defect number.

$c_1$  Allowable defect number for first sample, $n_1$.

$c_2$  Allowable defect number for first and second samples combined, $n_1 + n_2$.

$p_t$  Lot tolerance fraction defective.

$p$  Fraction defective; also used specifically to denote fraction defective in submitted product.

$\bar{p}$  Process average (expected) fraction defective in submitted product.

$p_A$  Average fraction defective in product after inspection—Average Outgoing Quality (*AOQ*).

$p_L$  Maximum value of average fraction defective in product after inspection—Average Outgoing Quality Limit (*AOQL*).

$p_1$  Specific value of $p$ in submitted product, for which $p_A = p_L$.

$P_C$  Consumer's Risk.

$P_a$  Probability of acceptance.

$P_P$  Producer's Risk.

$I$  Average number of pieces inspected per lot for submitted product of $p$ quality.

$\bar{I}$  Specific value of $I$ when $p$ in submitted product = $\bar{p}$.

$\bar{I}_{min}$  Minimum value of $\bar{I}$.

$M = p_t N$  Number of defects in lot of tolerance ($p_t$) quality.

$\bar{M} = \bar{p}N$  Number of defects in a lot of process average ($\bar{p}$) quality.

$k = \dfrac{\bar{p}}{p_t}$  Ratio of process average fraction defective to lot tolerance fraction defective.

$\bar{k} = \dfrac{\bar{p}}{p_L}$  Ratio of process average fraction defective to *AOQL*.

$m$  Number of defects found in sample.

$C_n^N = \dfrac{N!}{(N - n)! \, n!}$  Number of combinations of $N$ things taken $n$ at a time.

## TABLE I: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

### TABLE SL-0.5
LOT TOLERANCE PER CENT DEFECTIVE = 0.5%

| Process Average % Lot Size | 0–.005 | | | .006–.050 | | | .051–.100 | | | .101–.150 | | | .151–.200 | | | .201–.250 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–180 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 181–210 | 180 | 0 | .02 | 180 | 0 | .02 | 180 | 0 | .02 | 180 | 0 | .02 | 180 | 0 | .02 | 180 | 0 | .02 |
| 211–250 | 210 | 0 | .03 | 210 | 0 | .03 | 210 | 0 | .03 | 210 | 0 | .03 | 210 | 0 | .03 | 210 | 0 | .03 |
| 251–300 | 240 | 0 | .03 | 240 | 0 | .03 | 240 | 0 | .03 | 240 | 0 | .03 | 240 | 0 | .03 | 240 | 0 | .03 |
| 301–400 | 275 | 0 | .04 | 275 | 0 | .04 | 275 | 0 | .04 | 275 | 0 | .04 | 275 | 0 | .04 | 275 | 0 | .04 |
| 401–500 | 300 | 0 | .05 | 300 | 0 | .05 | 300 | 0 | .05 | 300 | 0 | .05 | 300 | 0 | .05 | 300 | 0 | .05 |
| 501–600 | 320 | 0 | .05 | 320 | 0 | .05 | 320 | 0 | .05 | 320 | 0 | .05 | 320 | 0 | .05 | 320 | 0 | .05 |
| 601–800 | 350 | 0 | .06 | 350 | 0 | .06 | 350 | 0 | .06 | 350 | 0 | .06 | 350 | 0 | .06 | 350 | 0 | .06 |
| 801–1000 | 365 | 0 | .06 | 365 | 0 | .06 | 365 | 0 | · .06 | 365 | 0 | .06 | 365 | 0 | .06 | 365 | 0 | .06 |
| 1001–2000 | 410 | 0 | .07 | 410 | 0 | .07 | 410 | 0 | .07 | 670 | 1 | .08 | 670 | 1 | .08 | 670 | 1 | .08 |
| 2001–3000 | 430 | 0 | .07 | 430 | 0 | .07 | 705 | 1 | .09 | 705 | 1 | .09 | 955 | 2 | .10 | 955 | 2 | .10 |
| 3001–4000 | 440 | 0 | .07 | 440 | 0 | .07 | 730 | 1 | .09 | 985 | 2 | .10 | 1230 | 3 | .11 | 1230 | 3 | .11 |
| 4001–5000 | 445 | 0 | .08 | 740 | 1 | .10 | 1000 | 2 | .11 | 1000 | 2 | .11 | 1250 | 3 | .12 | 1480 | 4 | .12 |
| 5001–7000 | 450 | 0 | .08 | 750 | 1 | .10 | 1020 | 2 | .12 | 1280 | 3 | .12 | 1510 | 4 | .13 | 1760 | 5 | .14 |
| 7001–10,000 | 455 | 0 | .08 | 760 | 1 | .10 | 1040 | 2 | .12 | 1530 | 4 | .14 | 1790 | 5 | .14 | 2240 | 7 | .16 |
| 10,001–20,000 | 460 | 0 | .08 | 775 | 1 | .10 | 1330 | 3 | .14 | 1820 | 5 | .16 | 2300 | 7 | .17 | 2780 | 9 | .18 |
| 20,001–50,000 | 775 | 1 | .11 | 1050 | 2 | .13 | 1600 | 4 | .15 | 2080 | 6 | .18 | 3060 | 10 | .20 | 4200 | 15 | .22 |
| 50,001–100,000 | 780 | 1 | .11 | 1060 | 2 | .13 | 1840 | 5 | .17 | 2590 | 8 | .19 | 3780 | 13 | .22 | 5140 | 19 | .24 |

### TABLE SL-1
LOT TOLERANCE PER CENT DEFECTIVE = 1.0%

| Process Average % Lot Size | 0–.010 | | | .011–.10 | | | .11–.20 | | | .21–.30 | | | .31–.40 | | | .41–.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–120 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 121–150 | 120 | 0 | .06 | 120 | 0 | .06 | 120 | 0 | .06 | 120 | 0 | .06 | 120 | 0 | .06 | 120 | 0 | .06 |
| 151–200 | 140 | 0 | .08 | 140 | 0 | .08 | 140 | 0 | .08 | 140 | 0 | .08 | 140 | 0 | .08 | 140 | 0 | .08 |
| 201–300 | 165 | 0 | .10 | 165 | 0 | .10 | 165 | 0 | .10 | 165 | 0 | .10 | 165 | 0 | .10 | 165 | 0 | .10 |
| 301–400 | 175 | 0 | .12 | 175 | 0 | .12 | 175 | 0 | .12 | 175 | 0 | .12 | 175 | 0 | .12 | 175 | 0 | .12 |
| 401–500 | 180 | 0 | .13 | 180 | 0 | .13 | 180 | 0 | .13 | 180 | 0 | .13 | 180 | 0 | .13 | 180 | 0 | .13 |
| 501–600 | 190 | 0 | .13 | 190 | 0 | .13 | 190 | 0 | .13 | 190 | 0 | .13 | 190 | 0 | .13 | 305 | 1 | .14 |
| 601–800 | 200 | 0 | .14 | 200 | 0 | .14 | 200 | 0 | .14 | 330 | 1 | .15 | 330 | 1 | .15 | 330 | 1 | .15 |
| 801–1000 | 205 | 0 | .14 | 205 | 0 | .14 | 205 | 0 | .14 | 335 | 1 | .17 | 335 | 1 | .17 | 335 | 1 | .17 |
| 1001–2000 | 220 | 0 | .15 | 220 | 0 | .15 | 360 | 1 | .19 | 490 | 2 | .21 | 490 | 2 | .21 | 610 | 3 | .22 |
| 2001–3000 | 220 | 0 | .15 | 375 | 1 | .20 | 505 | 2 | .23 | 630 | 3 | .24 | 745 | 4 | .26 | 870 | 5 | .26 |
| 3001–4000 | 225 | 0 | .15 | 380 | 1 | .20 | 510 | 2 | .24 | 645 | 3 | .25 | 880 | 5 | .28 | 1000 | 6 | .29 |
| 4001–5000 | 225 | 0 | .16 | 380 | 1 | .20 | 520 | 2 | .24 | 770 | 4 | .28 | 895 | 5 | .29 | 1120 | 7 | .31 |
| 5001–7000 | 230 | 0 | .15 | 385 | 1 | .21 | 655 | 3 | .27 | 780 | 4 | .29 | 1020 | 6 | .32 | 1260 | 8 | .34 |
| 7001–10,000 | 230 | 0 | .16 | 520 | 2 | .25 | 660 | 3 | .28 | 910 | 5 | .32 | 1150 | 7 | .34 | 1500 | 10 | .37 |
| 10,001–20,000 | 390 | 1 | .21 | 525 | 2 | .26 | 785 | 4 | .31 | 1040 | 6 | .35 | 1400 | 9 | .39 | 1980 | 14 | .43 |
| 20,001–50,000 | 390 | 1 | .21 | 530 | 2 | .26 | 920 | 5 | .34 | 1300 | 8 | .39 | 1890 | 13 | .44 | 2570 | 19 | .48 |
| 50,001–100,000 | 390 | 1 | .21 | 670 | 3 | .29 | 1040 | 6 | .36 | 1420 | 9 | .41 | 2120 | 15 | .47 | 3150 | 23 | .50 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
AOQL = Average Outgoing Quality Limit.

## TABLE I CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

### TABLE SL-2
LOT TOLERANCE PER CENT DEFECTIVE = 2.0%

| Process Average % | 0–.02 | | | .03–.20 | | | .21–.40 | | | .41–.60 | | | .61–.80 | | | .81–1.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–75 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 76–100 | 70 | 0 | .16 | 70 | 0 | .16 | 70 | 0 | .16 | 70 | 0 | .16 | 70 | 0 | .16 | 70 | 0 | .16 |
| 101–200 | 85 | 0 | .25 | 85 | 0 | .25 | 85 | 0 | .25 | 85 | 0 | .25 | 85 | 0 | .25 | 85 | 0 | .25 |
| 201–300 | 95 | 0 | .26 | 95 | 0 | .26 | 95 | 0 | .26 | 95 | 0 | .26 | 95 | 0 | .26 | 95 | 0 | .26 |
| 301–400 | 100 | 0 | .28 | 100 | 0 | .28 | 100 | 0 | .28 | 160 | 1 | .32 | 160 | 1 | .32 | 160 | 1 | .32 |
| 401–500 | 105 | 0 | .28 | 105 | 0 | .28 | 105 | 0 | .28 | 165 | 1 | .34 | 165 | 1 | .34 | 165 | 1 | .34 |
| 501–600 | 105 | 0 | .29 | 105 | 0 | .29 | 175 | 1 | .34 | 175 | 1 | .34 | 175 | 1 | .34 | 235 | 2 | .36 |
| 601–800 | 110 | 0 | .29 | 110 | 0 | .29 | 180 | 1 | .36 | 240 | 2 | .40 | 240 | 2 | .40 | 300 | 3 | .41 |
| 801–1000 | 115 | 0 | .28 | 115 | 0 | .28 | 185 | 1 | .37 | 245 | 2 | .42 | 305 | 3 | .44 | 305 | 3 | .44 |
| 1001–2000 | 115 | 0 | .30 | 190 | 1 | .40 | 255 | 2 | .47 | 325 | 3 | .50 | 380 | 4 | .54 | 440 | 5 | .56 |
| 2001–3000 | 115 | 0 | .31 | 190 | 1 | .41 | 260 | 2 | .48 | 385 | 4 | .58 | 450 | 5 | .60 | 565 | 7 | .64 |
| 3001–4000 | 115 | 0 | .31 | 195 | 1 | .41 | 330 | 3 | .54 | 450 | 5 | .63 | 510 | 6 | .65 | 690 | 9 | .70 |
| 4001–5000 | 195 | 1 | .41 | 260 | 2 | .50 | 335 | 3 | .54 | 455 | 5 | .63 | 575 | 7 | .69 | 750 | 10 | .74 |
| 5001–7000 | 195 | 1 | .42 | 265 | 2 | .50 | 335 | 3 | .55 | 515 | 6 | .69 | 640 | 8 | .73 | 870 | 12 | .80 |
| 7001–10,000 | 195 | 1 | .42 | 265 | 2 | .50 | 395 | 4 | .62 | 520 | 6 | .69 | 760 | 10 | .79 | 1050 | 15 | .86 |
| 10,001–20,000 | 200 | 1 | .42 | 265 | 2 | .51 | 460 | 5 | .67 | 650 | 8 | .77 | 885 | 12 | .86 | 1230 | 18 | .94 |
| 20,001–50,000 | 200 | 1 | .42 | 335 | 3 | .58 | 520 | 6 | .73 | 710 | 9 | .81 | 1060 | 15 | .93 | 1520 | 23 | 1.0 |
| 50,001–100,000 | 200 | 1 | .42 | 335 | 3 | .58 | 585 | 7 | .76 | 770 | 10 | .84 | 1180 | 17 | .97 | 1690 | 26 | 1.1 |

### TABLE SL-3
LOT TOLERANCE PER CENT DEFECTIVE = 3.0%

| Process Average % | 0–.03 | | | .04–.30 | | | .31–.60 | | | .61–.90 | | | .91–1.20 | | | 1.21–1.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–40 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 41–55 | 40 | 0 | .18 | 40 | 0 | .18 | 40 | 0 | .18 | 40 | 0 | .18 | 40 | 0 | .18 | 40 | 0 | .18 |
| 56–100 | 55 | 0 | .30 | 55 | 0 | .30 | 55 | 0 | .30 | 55 | 0 | .30 | 55 | 0 | .30 | 55 | 0 | .30 |
| 101–200 | 65 | 0 | .38 | 65 | 0 | .38 | 65 | 0 | .38 | 65 | 0 | .38 | 65 | 0 | .38 | 65 | 0 | .38 |
| 201–300 | 70 | 0 | .40 | 70 | 0 | .40 | 70 | 0 | .40 | 110 | 1 | .48 | 110 | 1 | .48 | 110 | 1 | .48 |
| 301–400 | 70 | 0 | .43 | 70 | 0 | .43 | 115 | 1 | .52 | 115 | 1 | .52 | 115 | 1 | .52 | 155 | 2 | .54 |
| 401–500 | 70 | 0 | .45 | 70 | 0 | .45 | 120 | 1 | .53 | 120 | 1 | .53 | 160 | 2 | .58 | 160 | 2 | .58 |
| 501–600 | 75 | 0 | .43 | 75 | 0 | .43 | 120 | 1 | .56 | 160 | 2 | .63 | 160 | 2 | .63 | 200 | 3 | .65 |
| 601–800 | 75 | 0 | .44 | 125 | 1 | .57 | 125 | 1 | .57 | 165 | 2 | .66 | 205 | 3 | .71 | 240 | 4 | .74 |
| 801–1000 | 75 | 0 | .45 | 125 | 1 | .59 | 170 | 2 | .67 | 210 | 3 | .73 | 250 | 4 | .76 | 290 | 5 | .78 |
| 1001–2000 | 75 | 0 | .47 | 130 | 1 | .60 | 175 | 2 | .72 | 260 | 4 | .85 | 300 | 5 | .90 | 380 | 7 | .95 |
| 2001–3000 | 75 | 0 | .48 | 130 | 1 | .62 | 220 | 3 | .82 | 300 | 5 | .95 | 385 | 7 | 1.0 | 460 | 9 | 1.1 |
| 3001–4000 | 130 | 1 | .63 | 175 | 2 | .75 | 220 | 3 | .84 | 305 | 5 | .96 | 425 | 8 | 1.1 | 540 | 11 | 1.2 |
| 4001–5000 | 130 | 1 | .63 | 175 | 2 | .76 | 260 | 4 | .91 | 345 | 6 | 1.0 | 465 | 9 | 1.1 | 620 | 13 | 1.2 |
| 5001–7000 | 130 | 1 | .63 | 175 | 2 | .76 | 265 | 4 | .92 | 390 | 7 | 1.1 | 505 | 10 | 1.2 | 700 | 15 | 1.3 |
| 7001–10,000 | 130 | 1 | .64 | 175 | 2 | .77 | 265 | 4 | .93 | 390 | 7 | 1.1 | 550 | 11 | 1.2 | 775 | 17 | 1.4 |
| 10,001–20,000 | 130 | 1 | .64 | 175 | 2 | .78 | 305 | 5 | 1.0 | 430 | 8 | 1.2 | 630 | 13 | 1.3 | 900 | 20 | 1.5 |
| 20,001–50,000 | 130 | 1 | .65 | 225 | 3 | .86 | 350 | 6 | 1.1 | 520 | 10 | 1.2 | 750 | 16 | 1.4 | 1090 | 25 | 1.6 |
| 50,001–100,000 | 130 | 1 | .65 | 265 | 4 | .96 | 390 | 7 | 1.1 | 590 | 12 | 1.3 | 830 | 18 | 1.5 | 1215 | 28 | 1.6 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
AOQL = Average Outgoing Quality Limit.

## TABLE I CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

### TABLE SL-4
Lot Tolerance Per Cent Defective = 4.0%

| Process Average % | 0–.04 | | | .05–.40 | | | .41–.80 | | | .81–1.20 | | | 1.21–1.60 | | | 1.61–2.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–35 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 36–50 | 34 | 0 | .35 | 34 | 0 | .35 | 34 | 0 | .35 | 34 | 0 | .35 | 34 | 0 | .35 | 34 | 0 | .35 |
| 51–100 | 44 | 0 | .47 | 44 | 0 | .47 | 44 | 0 | .47 | 44 | 0 | .47 | 44 | 0 | .47 | 44 | 0 | .47 |
| 101–200 | 50 | 0 | .55 | 50 | 0 | .55 | 50 | 0 | .55 | 50 | 0 | .55 | 50 | 0 | .55 | 50 | 0 | .55 |
| 201–300 | 55 | 0 | .57 | 55 | 0 | .57 | 85 | 1 | .71 | 85 | 1 | .71 | 85 | 1 | .71 | 85 | 1 | .71 |
| 301–400 | 55 | 0 | .58 | 55 | 0 | .58 | 90 | 1 | .72 | 120 | 2 | .80 | 120 | 2 | .80 | 145 | 3 | .86 |
| 401–500 | 55 | 0 | .60 | 55 | 0 | .60 | 90 | 1 | .77 | 120 | 2 | .87 | 150 | 3 | .91 | 150 | 3 | .91 |
| 501–600 | 55 | 0 | .61 | 95 | 1 | .76 | 125 | 2 | .87 | 125 | 2 | .87 | 155 | 3 | .93 | 185 | 4 | .95 |
| 601–800 | 55 | 0 | .62 | 95 | 1 | .78 | 125 | 2 | .93 | 160 | 3 | .97 | 190 | 4 | 1.0 | 220 | 5 | 1.0 |
| 801–1000 | 55 | 0 | .63 | 95 | 1 | .80 | 130 | 2 | .92 | 165 | 3 | .98 | 220 | 5 | 1.1 | 255 | 6 | 1.1 |
| 1001–2000 | 55 | 0 | .65 | 95 | 1 | .84 | 165 | 3 | 1.1 | 195 | 4 | 1.2 | 255 | 6 | 1.3 | 315 | 8 | 1.4 |
| 2001–3000 | 95 | 1 | .86 | 130 | 2 | 1.0 | 165 | 3 | 1.1 | 230 | 5 | 1.3 | 320 | 8 | 1.4 | 405 | 11 | 1.6 |
| 3001–4000 | 95 | 1 | .86 | 130 | 2 | 1.0 | 195 | 4 | 1.2 | 260 | 6 | 1.4 | 350 | 9 | 1.5 | 465 | 13 | 1.6 |
| 4001–5000 | 95 | 1 | .87 | 130 | 2 | 1.0 | 195 | 4 | 1.2 | 290 | 7 | 1.4 | 380 | 10 | 1.6 | 520 | 15 | 1.7 |
| 5001–7000 | 95 | 1 | .87 | 130 | 2 | 1.0 | 200 | 4 | 1.2 | 290 | 7 | 1.5 | 410 | 11 | 1.7 | 575 | 17 | 1.9 |
| 7001–10,000 | 95 | 1 | .88 | 130 | 2 | 1.1 | 230 | 5 | 1.4 | 325 | 8 | 1.5 | 440 | 12 | 1.7 | 645 | 19 | 1.9 |
| 10,001–20,000 | 95 | 1 | .88 | 165 | 3 | 1.2 | 265 | 6 | 1.4 | 355 | 9 | 1.6 | 500 | 14 | 1.8 | 730 | 22 | 2.0 |
| 20,001–50,000 | 95 | 1 | .88 | 165 | 3 | 1.2 | 295 | 7 | 1.5 | 380 | 10 | 1.7 | 590 | 17 | 2.0 | 870 | 26 | 2.1 |
| 50,001–100,000 | 95 | 1 | .88 | 200 | 4 | 1.3 | 325 | 8 | 1.6 | 410 | 11 | 1.8 | 620 | 18 | 2.0 | 925 | 29 | 2.2 |

### TABLE SL-5
Lot Tolerance Per Cent Defective = 5.0%

| Process Average % | 0–.05 | | | .06–.50 | | | .51–1.00 | | | 1.01–1.50 | | | 1.51–2.00 | | | 2.01–2.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–30 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 31–50 | 30 | 0 | .49 | 30 | 0 | .49 | 30 | 0 | .49 | 30 | 0 | .49 | 30 | 0 | .49 | 30 | 0 | .49 |
| 51–100 | 37 | 0 | .63 | 37 | 0 | .63 | 37 | 0 | .63 | 37 | 0 | .63 | 37 | 0 | :63 | 37 | 0 | .63 |
| 101–200 | 40 | 0 | .74 | 40 | 0 | .74 | 40 | 0 | .74 | 40 | 0 | .74 | 40 | 0 | .74 | 40 | 0 | .74 |
| 201–300 | 43 | 0 | .74 | 43 | 0 | .74 | 70 | 1 | .92 | 70 | 1 | .92 | 95 | 2 | .99 | 95 | 2 | .99 |
| 301–400 | 44 | 0 | .74 | 44 | 0 | .74 | 70 | 1 | .99 | 100 | 2 | 1.0 | 120 | 3 | 1.1 | 145 | 4 | 1.1 |
| 401–500 | 45 | 0 | .75 | 75 | 1 | .95 | 100 | 2 | 1.1 | 100 | 2 | 1.1 | 125 | 3 | 1.2 | 150 | 4 | 1.2 |
| 501–600 | 45 | 0 | .76 | 75 | 1 | .98 | 100 | 2 | 1.1 | 125 | 3 | 1.2 | 150 | 4 | 1.3 | 175 | 5 | 1.3 |
| 601–800 | 45 | 0 | .77 | 75 | 1 | 1.0 | 100 | 2 | 1.2 | 130 | 3 | 1.2 | 175 | 5 | 1.4 | 200 | 6 | 1.4 |
| 801–1000 | 45 | 0 | .78 | 75 | 1 | 1.0 | 105 | 2 | 1.2 | 155 | 4 | 1.4 | 180 | 5 | 1.4 | 225 | 7 | 1.5 |
| 1001–2000 | 45 | 0 | .80 | 75 | 1 | 1.0 | 130 | 3 | 1.4 | 180 | 5 | 1.6 | 230 | 7 | 1.7 | 280 | 9 | 1.8 |
| 2001–3000 | 75 | 1 | 1.1 | 105 | 2 | 1.3 | 135 | 3 | 1.4 | 210 | 6 | 1.7 | 280 | 9 | 1.9 | 370 | 13 | 2.1 |
| 3001–4000 | 75 | 1 | 1.1 | 105 | 2 | 1.3 | 160 | 4 | 1.5 | 210 | 6 | 1.7 | 305 | 10 | 2.0 | 420 | 15 | 2.2 |
| 4001–5000 | 75 | 1 | 1.1 | 105 | 2 | 1.3 | 160 | 4 | 1.5 | 235 | 7 | 1.8 | 330 | 11 | 2.0 | 440 | 16 | 2.2 |
| 5001–7000 | 75 | 1 | 1.1 | 105 | 2 | 1.3 | 185 | 5 | 1.7 | 260 | 8 | 1.9 | 350 | 12 | 2.2 | 490 | 18 | 2.4 |
| 7001–10,000 | 75 | 1 | 1.1 | 105 | 2 | 1.3 | 185 | 5 | 1.7 | 260 | 8 | 1.9 | 380 | 13 | 2.2 | 535 | 20 | 2.5 |
| 10,001–20,000 | 75 | 1 | 1.1 | 135 | 3 | 1.4 | 210 | 6 | 1.8 | 285 | 9 | 2.0 | 425 | 15 | 2.3 | 610 | 23 | 2.6 |
| 20,001–50,000 | 75 | 1 | 1.1 | 135 | 3 | 1.4 | 235 | 7 | 1.9 | 305 | 10 | 2.1 | 470 | 17 | 2.4 | 700 | 27 | 2.7 |
| 50,001–100,000 | 75 | 1 | 1.1 | 160 | 4 | 1.6 | 235 | 7 | 1.9 | 355 | 12 | 2.2 | 515 | 19 | 2.5 | 770 | 30 | 2.8 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
AOQL = Average Outgoing Quality Limit.

## TABLE I CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

### TABLE SL-7
#### LOT TOLERANCE PER CENT DEFECTIVE = 7.0%

| Process Average % | 0–.07 | | | .08–.70 | | | .71–1.40 | | | 1.41–2.10 | | | 2.11–2.80 | | | 2.81–3.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–25 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 26–50 | 24 | 0 | .80 | 24 | 0 | .80 | 24 | 0 | .80 | 24 | 0 | .80 | 24 | 0 | .80 | 24 | 0 | .80 |
| 51–100 | 28 | 0 | .95 | 28 | 0 | .95 | 28 | 0 | .95 | 28 | 0 | .95 | 28 | 0 | .95 | 28 | 0 | .95 |
| 101–200 | 30 | 0 | 1.0 | 30 | 0 | 1.0 | 49 | 1 | 1.3 | 49 | 1 | 1.3 | 49 | 1 | 1.3 | 65 | 2 | 1.4 |
| 201–300 | 31 | 0 | 1.1 | 31 | 0 | 1.1 | 50 | 1 | 1.4 | 70 | 2 | 1.5 | 85 | 3 | 1.6 | 85 | 3 | 1.6 |
| 301–400 | 32 | 0 | 1.1 | 55 | 1 | 1.4 | 70 | 2 | 1.6 | 90 | 3 | 1.7 | 105 | 4 | 1.8 | 125 | 5 | 1.8 |
| 401–500 | 32 | 0 | 1.1 | 55 | 1 | 1.4 | 75 | 2 | 1.6 | 90 | 3 | 1.6 | 110 | 4 | 1.9 | 140 | 6 | 2.0 |
| 501–600 | 32 | 0 | 1.1 | 55 | 1 | 1.4 | 75 | 2 | 1.7 | 95 | 3 | 1.8 | 125 | 5 | 2.0 | 145 | 6 | 2.1 |
| 601–800 | 32 | 0 | 1.1 | 55 | 1 | 1.4 | 75 | 2 | 1.7 | 110 | 4 | 2.0 | 130 | 5 | 2.1 | 160 | 7 | 2.2 |
| 801–1000 | 33 | 0 | 1.1 | 55 | 1 | 1.4 | 95 | 3 | 1.9 | 110 | 4 | 2.1 | 145 | 6 | 2.2 | 180 | 8 | 2.4 |
| 1001–2000 | 55 | 1 | 1.5 | 75 | 2 | 1.8 | 95 | 3 | 2.0 | 130 | 5 | 2.3 | 185 | 8 | 2.5 | 230 | 11 | 2.8 |
| 2001–3000 | 55 | 1 | 1.5 | 75 | 2 | 1.8 | 115 | 4 | 2.1 | 150 | 6 | 2.4 | 215 | 10 | 2.8 | 300 | 15 | 3.0 |
| 3001–4000 | 55 | 1 | 1.5 | 75 | 2 | 1.8 | 115 | 4 | 2.2 | 165 | 7 | 2.6 | 235 | 11 | 2.9 | 330 | 17 | 3.2 |
| 4001–5000 | 55 | 1 | 1.5 | 75 | 2 | 1.8 | 130 | 5 | 2.4 | 185 | 8 | 2.7 | 250 | 12 | 3.0 | 350 | 18 | 3.3 |
| 5001–7000 | 55 | 1 | 1.5 | 75 | 2 | 1.8 | 130 | 5 | 2.4 | 185 | 8 | 2.7 | 270 | 13 | 3.1 | 385 | 20 | 3.4 |
| 7001–10,000 | 55 | 1 | 1.5 | 95 | 3 | 2.0 | 150 | 6 | 2.5 | 200 | 9 | 2.9 | 285 | 14 | 3.2 | 415 | 22 | 3.6 |
| 10,001–20,000 | 55 | 1 | 1.5 | 95 | 3 | 2.0 | 150 | 6 | 2.5 | 220 | 10 | 2.9 | 320 | 16 | 3.3 | 470 | 25 | 3.7 |
| 20,001–50,000 | 55 | 1 | 1.5 | 115 | 4 | 2.2 | 170 | 7 | 2.6 | 235 | 11 | 3.1 | 355 | 18 | 3.5 | 530 | 29 | 3.9 |
| 50,001–100,000 | 55 | 1 | 1.5 | 115 | 4 | 2.2 | 185 | 8 | 2.7 | 270 | 13 | 3.1 | 370 | 19 | 3.5 | 530 | 29 | 3.9 |

### TABLE SL-10
#### LOT TOLERANCE PER CENT DEFECTIVE = 10.0%

| Process Average % | 0–.10 | | | .11–1.00 | | | 1.01–2.00 | | | 2.01–3.00 | | | 3.01–4.00 | | | 4.01–5.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % | n | c | AOQL % |
| 1–20 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 | All | 0 | 0 |
| 21–50 | 17 | 0 | 1.3 | 17 | 0 | 1.3 | 17 | 0 | 1.3 | 17 | 0 | 1.3 | 17 | 0 | 1.3 | 17 | 0 | 1.3 |
| 51–100 | 20 | 0 | 1.5 | 20 | 0 | 1.5 | 20 | 0 | 1.5 | 33 | 1 | 1.7 | 33 | 1 | 1.7 | 33 | 1 | 1.7 |
| 101–200 | 22 | 0 | 1.5 | 22 | 0 | 1.5 | 35 | 1 | 2.0 | 48 | 2 | 2.2 | 48 | 2 | 2.2 | 60 | 3 | 2.4 |
| 201–300 | 23 | 0 | 1.5 | 38 | 1 | 1.9 | 50 | 2 | 2.3 | 65 | 3 | 2.4 | 75 | 4 | 2.6 | 85 | 5 | 2.7 |
| 301–400 | 23 | 0 | 1.5 | 38 | 1 | 2.0 | 50 | 2 | 2.4 | 65 | 3 | 2.5 | 90 | 5 | 2.7 | 100 | 6 | 2.9 |
| 401–500 | 23 | 0 | 1.5 | 38 | 1 | 2.0 | 50 | 2 | 2.5 | 75 | 4 | 2.8 | 90 | 5 | 2.9 | 110 | 7 | 3.2 |
| 501–600 | 23 | 0 | 1.5 | 38 | 1 | 2.1 | 65 | 3 | 2.7 | 80 | 4 | 3.0 | 100 | 6 | 3.2 | 125 | 8 | 3.3 |
| 601–800 | 23 | 0 | 1.6 | 38 | 1 | 2.1 | 65 | 3 | 2.8 | 90 | 5 | 3.1 | 100 | 6 | 3.3 | 140 | 9 | 3.4 |
| 801–1000 | 39 | 1 | 2.1 | 50 | 2 | 2.6 | 65 | 3 | 2.8 | 90 | 5 | 3.2 | 115 | 7 | 3.4 | 150 | 10 | 3.7 |
| 1001–2000 | 39 | 1 | 2.1 | 50 | 2 | 2.6 | 80 | 4 | 3.1 | 105 | 6 | 3.4 | 140 | 9 | 3.9 | 195 | 14 | 4.4 |
| 2001–3000 | 39 | 1 | 2.1 | 50 | 2 | 2.6 | 80 | 4 | 3.1 | 115 | 7 | 3.7 | 165 | 11 | 4.1 | 230 | 17 | 4.7 |
| 3001–4000 | 39 | 1 | 2.1 | 50 | 2 | 2.6 | 90 | 5 | 3.4 | 130 | 8 | 3.8 | 190 | 13 | 4.4 | 255 | 19 | 4.8 |
| 4001–5000 | 39 | 1 | 2.1 | 50 | 2 | 2.6 | 90 | 5 | 3.5 | 130 | 8 | 3.9 | 200 | 14 | 4.5 | 270 | 20 | 4.9 |
| 5001–7000 | 39 | 1 | 2.1 | 65 | 3 | 3.0 | 105 | 6 | 3.6 | 140 | 9 | 4.1 | 200 | 14 | 4.6 | 295 | 22 | 5.0 |
| 7001–10,000 | 39 | 1 | 2.2 | 65 | 3 | 3.0 | 105 | 6 | 3.6 | 150 | 10 | 4.2 | 210 | 15 | 4.7 | 315 | 24 | 5.2 |
| 10,001–20,000 | 39 | 1 | 2.2 | 65 | 3 | 3.0 | 120 | 7 | 3.7 | 150 | 10 | 4.3 | 240 | 17 | 4.8 | 340 | 26 | 5.4 |
| 20,001–50,000 | 39 | 1 | 2.2 | 80 | 4 | 3.2 | 120 | 7 | 3.7 | 165 | 11 | 4.4 | 260 | 19 | 5.0 | 380 | 30 | 5.7 |
| 50,001–100,000 | 39 | 1 | 2.2 | 95 | 5 | 3.3 | 130 | 8 | 4.0 | 180 | 12 | 4.4 | 270 | 20 | 5.1 | 380 | 30 | 5.7 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
AOQL = Average Outgoing Quality Limit.

# TABLE II: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

## TABLE DL-0.5

### LOT TOLERANCE PER CENT DEFECTIVE = 0.5%

Column legend per Process Average % range: Trial 1 ($n_1$, $c_1$) · Trial 2 ($n_2$, $n_1+n_2$, $c_2$) · AOQL in %.

| Lot Size | 0-.005 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% | .006-.050 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% | .051-.100 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% | .101-.150 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% | .151-.200 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% | .201-.250 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | AOQL% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-180 | All 180 | 0 | — | — | — | 0 | All 180 | 0 | — | — | — | 0 | All 180 | 0 | — | — | — | 0 | All 180 | 0 | — | — | — | 0 | All 180 | 0 | — | — | — | 0 | All 180 | 0 | — | — | — | 0 |
| 181-210 | 180 | 0 | — | — | — | .02 | 180 | 0 | — | — | — | .02 | 180 | 0 | — | — | — | .02 | 180 | 0 | — | — | — | .02 | 180 | 0 | — | — | — | .02 | 180 | 0 | — | — | — | .02 |
| 211-250 | 210 | 0 | — | — | — | .03 | 210 | 0 | — | — | — | .03 | 210 | 0 | — | — | — | .03 | 210 | 0 | — | — | — | .03 | 210 | 0 | — | — | — | .03 | 210 | 0 | — | — | — | .03 |
| 251-300 | 240 | 0 | — | — | — | .03 | 240 | 0 | — | — | — | .03 | 240 | 0 | — | — | — | .03 | 240 | 0 | — | — | — | .03 | 240 | 0 | — | — | — | .03 | 240 | 0 | — | — | — | .03 |
| 301-400 | 275 | 0 | — | — | — | .04 | 275 | 0 | — | — | — | .04 | 275 | 0 | — | — | — | .04 | 275 | 0 | — | — | — | .04 | 275 | 0 | — | — | — | .04 | 275 | 0 | — | — | — | .04 |
| 401-450 | 290 | 0 | — | — | — | .04 | 290 | 0 | — | — | — | .04 | 290 | 0 | — | — | — | .04 | 290 | 0 | — | — | — | .04 | 290 | 0 | — | — | — | .04 | 290 | 0 | — | — | — | .04 |
| 451-500 | 340 | 0 | 110 | 450 | 1 | .04 | 340 | 0 | 110 | 450 | 1 | .04 | 340 | 0 | 110 | 450 | 1 | .04 | 340 | 0 | 110 | 450 | 1 | .04 | 340 | 0 | 110 | 450 | 1 | .04 | 340 | 0 | 110 | 450 | 1 | .04 |
| 501-550 | 350 | 0 | 130 | 480 | 1 | .05 | 350 | 0 | 130 | 480 | 1 | .05 | 350 | 0 | 130 | 480 | 1 | .05 | 350 | 0 | 130 | 480 | 1 | .05 | 350 | 0 | 130 | 480 | 1 | .05 | 350 | 0 | 130 | 480 | 1 | .05 |
| 551-600 | 360 | 0 | 150 | 510 | 1 | .05 | 360 | 0 | 150 | 510 | 1 | .05 | 360 | 0 | 150 | 510 | 1 | .05 | 360 | 0 | 150 | 510 | 1 | .05 | 360 | 0 | 150 | 510 | 1 | .05 | 360 | 0 | 150 | 510 | 1 | .05 |
| 601-800 | 400 | 0 | 185 | 585 | 1 | .06 | 400 | 0 | 185 | 585 | 1 | .06 | 400 | 0 | 185 | 585 | 1 | .06 | 400 | 0 | 185 | 585 | 1 | .06 | 400 | 0 | 185 | 585 | 1 | .06 | 400 | 0 | 185 | 585 | 1 | .06 |
| 801-1000 | 430 | 0 | 200 | 630 | 1 | .07 | 430 | 0 | 200 | 630 | 1 | .07 | 430 | 0 | 200 | 630 | 1 | .07 | 430 | 0 | 200 | 630 | 1 | .07 | 430 | 0 | 200 | 630 | 1 | .07 | 430 | 0 | 200 | 630 | 1 | .07 |
| 1001-2000 | 490 | 0 | 265 | 755 | 1 | .08 | 490 | 0 | 265 | 755 | 1 | .08 | 490 | 0 | 265 | 755 | 1 | .08 | 490 | 0 | 500 | 990 | 2 | .09 | 490 | 0 | 500 | 990 | 2 | .09 | 490 | 0 | 500 | 990 | 2 | .09 |
| 2001-3000 | 520 | 0 | 290 | 810 | 1 | .09 | 520 | 0 | 290 | 810 | 1 | .09 | 520 | 0 | 530 | 1050 | 2 | .10 | 520 | 0 | 530 | 1050 | 2 | .10 | 520 | 0 | 760 | 1280 | 3 | .11 | 520 | 0 | 980 | 1500 | 4 | .11 |
| 3001-4000 | 530 | 0 | 310 | 840 | 2 | .09 | 530 | 0 | 570 | 1100 | 2 | .09 | 530 | 0 | 570 | 1100 | 2 | .11 | 530 | 0 | 810 | 1340 | 3 | .11 | 530 | 0 | 1030 | 1560 | 4 | .12 | 840 | 1 | 1160 | 2000 | 6 | .13 |
| 4001-5000 | 540 | 0 | 305 | 845 | 1 | .09 | 540 | 0 | 580 | 1120 | 2 | .09 | 540 | 0 | 830 | 1370 | 3 | .11 | 540 | 0 | 1060 | 1600 | 4 | .13 | 845 | 1 | 1205 | 2050 | 6 | .14 | 845 | 1 | 1425 | 2270 | 7 | .14 |
| 5001-7000 | 545 | 0 | 315 | 860 | 1 | .10 | 545 | 0 | 615 | 1160 | 2 | .10 | 545 | 0 | 865 | 1410 | 3 | .11 | 545 | 0 | 1105 | 1650 | 4 | .13 | 860 | 1 | 1490 | 2350 | 7 | .15 | 860 | 1 | 1700 | 2560 | 8 | .16 |
| 7001-10,000 | 550 | 0 | 330 | 880 | 2 | .10 | 550 | 0 | 620 | 1170 | 2 | .10 | 550 | 0 | 1130 | 1680 | 4 | .12 | 880 | 1 | 1300 | 2180 | 6 | .15 | 880 | 1 | 1770 | 2650 | 8 | .16 | 1170 | 2 | 2160 | 3330 | 11 | .17 |
| 10,001-20,000 | 555 | 0 | 345 | 900 | 1 | .10 | 555 | 0 | 925 | 1480 | 3 | .10 | 555 | 0 | 1185 | 1740 | 4 | .13 | 900 | 1 | 1840 | 2740 | 8 | .18 | 1200 | 2 | 2250 | 3450 | 11 | .19 | 1740 | 4 | 2620 | 4360 | 15 | .21 |
| 20,001-50,000 | 560 | 0 | 650 | 1210 | 2 | .12 | 560 | 0 | 940 | 1500 | 3 | .12 | 560 | 0 | 1400 | 1960 | 6 | .14 | 1210 | 1 | 2330 | 3540 | 11 | .20 | 1500 | 3 | 2980 | 4480 | 15 | .22 | 2300 | 6 | 4240 | 6540 | 24 | .24 |
| 50,001-100,000 | 560 | 0 | 650 | 1210 | 2 | .12 | 560 | 0 | 1210 | 1770 | 4 | .12 | 905 | 1 | 1655 | 2560 | 7 | .15 | 1210 | 2 | 2590 | 3800 | 12 | .21 | 1770 | 4 | 3690 | 5460 | 19 | .23 | 2560 | 7 | 5420 | 7980 | 30 | .26 |

## TABLE DL-1

### Lot Tolerance Per Cent Defective = 1.0%

| Process Average % → Lot Size | 0-.010 n1 | c1 | n2 | n1+n2 | c2 | AOQL% | .011-.10 n1 | c1 | n2 | n1+n2 | c2 | AOQL% | .11-.20 n1 | c1 | n2 | n1+n2 | c2 | AOQL% | .21-.30 n1 | c1 | n2 | n1+n2 | c2 | AOQL% | .31-.40 n1 | c1 | n2 | n1+n2 | c2 | AOQL% | .41-.50 n1 | c1 | n2 | n1+n2 | c2 | AOQL% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-120 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 |
| 121-150 | 120 | 0 | — | — | — | .06 | 120 | 0 | — | — | — | .06 | 120 | 0 | — | — | — | .06 | 120 | 0 | — | — | — | .06 | 120 | 0 | — | — | — | .06 | 120 | 0 | — | — | — | .06 |
| 151-200 | 140 | 0 | — | — | — | .08 | 140 | 0 | — | — | — | .08 | 140 | 0 | — | — | — | .08 | 140 | 0 | — | — | — | .08 | 140 | 0 | — | — | — | .08 | 140 | 0 | — | — | — | .08 |
| 201-260 | 165 | 0 | — | — | — | .10 | 165 | 0 | — | — | — | .10 | 165 | 0 | — | — | — | .10 | 165 | 0 | — | — | — | .10 | 165 | 0 | — | — | — | .10 | 165 | 0 | — | — | — | .10 |
| 261-300 | 180 | 0 | 75 | 255 | 1 | .10 | 180 | 0 | 75 | 255 | 1 | .10 | 180 | 0 | 75 | 255 | 1 | .10 | 180 | 0 | 75 | 255 | 1 | .10 | 180 | 0 | 75 | 255 | 1 | .10 | 180 | 0 | 75 | 255 | 1 | .10 |
| 301-400 | 200 | 0 | 90 | 290 | 1 | .12 | 200 | 0 | 90 | 290 | 1 | .12 | 200 | 0 | 90 | 290 | 1 | .12 | 200 | 0 | 90 | 290 | 1 | .12 | 200 | 0 | 90 | 290 | 1 | .12 | 200 | 0 | 90 | 290 | 1 | .12 |
| 401-500 | 215 | 0 | 100 | 315 | 1 | .14 | 215 | 0 | 100 | 315 | 1 | .14 | 215 | 0 | 100 | 315 | 1 | .14 | 215 | 0 | 100 | 315 | 1 | .14 | 215 | 0 | 100 | 315 | 1 | .14 | 215 | 0 | 100 | 315 | 1 | .14 |
| 501-600 | 225 | 0 | 115 | 340 | 1 | .15 | 225 | 0 | 115 | 340 | 1 | .15 | 225 | 0 | 115 | 340 | 1 | .15 | 225 | 0 | 115 | 340 | 1 | .15 | 225 | 0 | 115 | 340 | 1 | .15 | 225 | 0 | 205 | 430 | 2 | .16 |
| 601-800 | 235 | 0 | 125 | 360 | 1 | .16 | 235 | 0 | 125 | 360 | 1 | .16 | 235 | 0 | 125 | 360 | 1 | .16 | 235 | 0 | 230 | 465 | 2 | .18 | 235 | 0 | 230 | 465 | 2 | .18 | 235 | 0 | 230 | 465 | 2 | .18 |
| 801-1000 | 245 | 0 | 135 | 380 | 1 | .17 | 245 | 0 | 135 | 380 | 1 | .17 | 245 | 0 | 250 | 495 | 2 | .19 | 245 | 0 | 250 | 495 | 2 | .19 | 245 | 0 | 250 | 495 | 2 | .19 | 245 | 0 | 250 | 495 | 2 | .19 |
| 1001-2000 | 265 | 0 | 155 | 420 | 1 | .18 | 265 | 0 | 155 | 420 | 1 | .18 | 265 | 0 | 285 | 550 | 2 | .21 | 265 | 0 | 405 | 670 | 3 | .23 | 265 | 0 | 515 | 780 | 4 | .24 | 265 | 0 | 515 | 780 | 4 | .24 |
| 2001-3000 | 270 | 0 | 160 | 430 | 1 | .19 | 270 | 0 | 300 | 570 | 2 | .22 | 270 | 0 | 420 | 690 | 3 | .25 | 270 | 0 | 545 | 815 | 4 | .26 | 430 | 1 | 620 | 1050 | 6 | .28 | 430 | 1 | 830 | 1260 | 8 | .30 |
| 3001-4000 | 275 | 0 | 160 | 435 | 2 | .19 | 275 | 0 | 305 | 580 | 2 | .22 | 275 | 0 | 435 | 710 | 3 | .25 | 435 | 1 | 645 | 1080 | 6 | .29 | 435 | 1 | 865 | 1300 | 8 | .30 | 580 | 2 | 940 | 1520 | 10 | .33 |
| 4001-5000 | 275 | 0 | 165 | 440 | 1 | .19 | 275 | 0 | 310 | 585 | 2 | .23 | 275 | 0 | 565 | 840 | 4 | .28 | 440 | 1 | 660 | 1100 | 6 | .30 | 440 | 1 | 1000 | 1440 | 9 | .33 | 585 | 2 | 1075 | 1660 | 11 | .35 |
| 5001-7000 | 275 | 0 | 170 | 445 | 1 | .20 | 275 | 0 | 315 | 590 | 2 | .23 | 275 | 0 | 580 | 855 | 4 | .29 | 445 | 1 | 785 | 1230 | 7 | .33 | 590 | 2 | 990 | 1580 | 10 | .36 | 730 | 3 | 1190 | 1920 | 13 | .38 |
| 7001-10,000 | 280 | 0 | 320 | 600 | 2 | .24 | 280 | 0 | 460 | 740 | 3 | .26 | 275 | 0 | 590 | 870 | 4 | .30 | 450 | 1 | 920 | 1370 | 8 | .35 | 600 | 2 | 1240 | 1840 | 12 | .39 | 870 | 4 | 1540 | 2410 | 17 | .41 |
| 10,001-20,000 | 280 | 0 | 325 | 605 | 2 | .24 | 280 | 0 | 465 | 745 | 3 | .27 | 450 | 1 | 700 | 1150 | 6 | .33 | 605 | 2 | 1035 | 1640 | 10 | .39 | 745 | 3 | 1485 | 2230 | 15 | .43 | 1150 | 6 | 1990 | 3140 | 23 | .44 |
| 20,001-50,000 | 280 | 0 | 325 | 605 | 2 | .25 | 280 | 0 | 605 | 885 | 4 | .30 | 450 | 1 | 830 | 1280 | 7 | .36 | 605 | 2 | 1295 | 1900 | 12 | .42 | 885 | 4 | 1845 | 2730 | 19 | .47 | 1280 | 7 | 2600 | 3880 | 29 | .52 |
| 50,001-100,000 | 280 | 0 | 325 | 605 | 2 | .25 | 280 | 0 | 605 | 885 | 4 | .30 | 450 | 1 | 960 | 1410 | 8 | .38 | 605 | 2 | 1545 | 2150 | 14 | .44 | 885 | 4 | 2085 | 2970 | 21 | .49 | 1410 | 8 | 3280 | 4690 | 36 | .55 |

n1 = Size of First Sample; n2 = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.
c1 = Allowable Defect Number for First Sample; c2 = Allowable Defect Number for First and Second Samples Combined.
AOQL = Average Outgoing Quality Limit.

# TABLE II CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES— BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

## TABLE DL-2

### Lot Tolerance Per Cent Defective = 2.0%

| Lot Size | **0–.02** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | **.03–.20** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | **.21–.40** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | **.41–.60** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | **.61–.80** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | **.81–1.00** Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–75 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 |
| 76–100 | 70 | 0 | — | — | — | .16 | 70 | 0 | — | — | — | .16 | 70 | 0 | — | — | — | .16 | 70 | 0 | — | — | — | .16 | 70 | 0 | — | — | — | .16 | 70 | 0 | — | — | — | .16 |
| 101–200 | 85 | 0 | — | — | — | .25 | 85 | 0 | — | — | — | .25 | 85 | 0 | — | — | — | .25 | 85 | 0 | — | — | — | .25 | 85 | 0 | — | — | — | .25 | 85 | 0 | — | — | — | .25 |
| 201–300 | 115 | 0 | 50 | 165 | 1 | .29 | 115 | 0 | 50 | 165 | 1 | .29 | 115 | 0 | 50 | 165 | 1 | .29 | 115 | 0 | 50 | 165 | 1 | .29 | 115 | 0 | 50 | 165 | 1 | .29 | 115 | 0 | 50 | 165 | 1 | .29 |
| 301–400 | 120 | 0 | 60 | 180 | 1 | .32 | 120 | 0 | 60 | 180 | 1 | .32 | 120 | 0 | 60 | 180 | 1 | .32 | 120 | 0 | 115 | 235 | 2 | .34 | 120 | 0 | 115 | 235 | 2 | .34 | 120 | 0 | 115 | 235 | 2 | .34 |
| 401–500 | 125 | 0 | 65 | 190 | 1 | .33 | 125 | 0 | 65 | 190 | 1 | .33 | 125 | 0 | 120 | 245 | 2 | .37 | 125 | 0 | 120 | 245 | 2 | .37 | 125 | 0 | 120 | 245 | 2 | .37 | 125 | 0 | 120 | 245 | 2 | .37 |
| 501–600 | 125 | 0 | 70 | 195 | 1 | .34 | 125 | 0 | 70 | 195 | 1 | .34 | 125 | 0 | 130 | 255 | 2 | .39 | 125 | 0 | 130 | 255 | 2 | .39 | 125 | 0 | 185 | 310 | 3 | .41 | 125 | 0 | 185 | 310 | 3 | .41 |
| 601–800 | 130 | 0 | 75 | 205 | 1 | .35 | 130 | 0 | 75 | 205 | 1 | .35 | 130 | 0 | 135 | 265 | 2 | .41 | 130 | 0 | 195 | 325 | 3 | .44 | 130 | 0 | 250 | 380 | 4 | .45 | 130 | 0 | 250 | 380 | 4 | .45 |
| 801–1000 | 135 | 0 | 75 | 210 | 1 | .36 | 135 | 0 | 140 | 275 | 2 | .42 | 135 | 0 | 140 | 275 | 2 | .42 | 135 | 0 | 200 | 335 | 3 | .46 | 135 | 0 | 255 | 390 | 4 | .48 | 210 | 1 | 290 | 500 | 6 | .54 |
| 1001–2000 | 135 | 0 | 85 | 220 | 1 | .38 | 135 | 0 | 155 | 290 | 2 | .45 | 135 | 0 | 220 | 355 | 3 | .50 | 135 | 0 | 285 | 420 | 4 | .50 | 220 | 1 | 375 | 595 | 7 | .62 | 220 | 1 | 485 | 705 | 9 | .65 |
| 2001–3000 | 140 | 0 | 85 | 225 | 1 | .39 | 140 | 0 | 155 | 295 | 2 | .46 | 140 | 0 | 285 | 425 | 4 | .56 | 225 | 1 | 385 | 610 | 7 | .65 | 295 | 2 | 435 | 730 | 9 | .69 | 360 | 3 | 535 | 895 | 12 | .72 |
| 3001–4000 | 140 | 0 | 85 | 225 | 1 | .40 | 140 | 0 | 225 | 365 | 3 | .52 | 140 | 0 | 290 | 430 | 4 | .57 | 225 | 1 | 455 | 680 | 8 | .69 | 295 | 2 | 555 | 850 | 11 | .74 | 365 | 3 | 715 | 1080 | 15 | .77 |
| 4001–5000 | 140 | 0 | 160 | 300 | 2 | .47 | 140 | 0 | 230 | 370 | 3 | .53 | 140 | 0 | 360 | 500 | 5 | .61 | 225 | 1 | 460 | 685 | 8 | .70 | 300 | 3 | 620 | 920 | 12 | .77 | 435 | 4 | 775 | 1210 | 17 | .81 |
| 5001–7000 | 140 | 0 | 160 | 300 | 2 | .48 | 140 | 0 | 230 | 370 | 3 | .54 | 140 | 0 | 365 | 505 | 5 | .62 | 300 | 2 | 450 | 750 | 9 | .74 | 370 | 3 | 680 | 1050 | 14 | .82 | 505 | 5 | 935 | 1440 | 21 | .89 |
| 7001–10,000 | 140 | 0 | 160 | 300 | 2 | .48 | 140 | 0 | 235 | 375 | 3 | .54 | 225 | 1 | 350 | 575 | 6 | .66 | 300 | 2 | 520 | 820 | 10 | .77 | 375 | 3 | 735 | 1110 | 15 | .85 | 575 | 6 | 1055 | 1630 | 24 | .95 |
| 10,001–20,000 | 140 | 0 | 165 | 305 | 2 | .49 | 140 | 0 | 235 | 375 | 3 | .54 | 225 | 1 | 415 | 640 | 7 | .71 | 305 | 2 | 645 | 950 | 12 | .83 | 375 | 3 | 935 | 1310 | 18 | .92 | 640 | 7 | 1240 | 1880 | 28 | 1.0 |
| 20,001–50,000 | 140 | 0 | 165 | 305 | 2 | .49 | 140 | 0 | 305 | 445 | 4 | .59 | 225 | 1 | 480 | 705 | 8 | .75 | 305 | 2 | 715 | 1020 | 13 | .86 | 445 | 4 | 1045 | 1490 | 21 | .98 | 705 | 8 | 1635 | 2340 | 36 | 1.1 |
| 50,001–100,000 | 140 | 0 | 165 | 305 | 2 | .49 | 140 | 0 | 305 | 445 | 4 | .60 | 225 | 1 | 545 | 770 | 9 | .78 | 305 | 2 | 830 | 1135 | 15 | .90 | 510 | 5 | 1150 | 1660 | 24 | 1.0 | 770 | 9 | 1850 | 2620 | 41 | 1.2 |

# TABLE DL-3

## Lot Tolerance Per Cent Defective = 3.0%

| Lot Size | 0–.03 | | | | | | .04–.30 | | | | | | .31–.60 | | | | | | .61–.90 | | | | | | .91–1.20 | | | | | | 1.21–1.50 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % |
| 1–40 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 |
| 41–55 | 40 | 0 | – | – | – | .18 | 40 | 0 | – | – | – | .18 | 40 | 0 | – | – | – | .18 | 40 | 0 | – | – | – | .18 | 40 | 0 | – | – | – | .18 | 40 | 0 | – | – | – | .18 |
| 56–100 | 55 | 0 | – | – | – | .30 | 55 | 0 | – | – | – | .30 | 55 | 0 | – | – | – | .30 | 55 | 0 | – | – | – | .30 | 55 | 0 | – | – | – | .30 | 55 | 0 | – | – | – | .30 |
| 101–150 | 70 | 0 | 30 | 100 | 1 | .37 | 70 | 0 | 30 | 100 | 1 | .37 | 70 | 0 | 30 | 100 | 1 | .37 | 70 | 0 | 30 | 100 | 1 | .37 | 70 | 0 | 30 | 100 | 1 | .37 | 70 | 0 | 30 | 100 | 1 | .37 |
| 151–200 | 75 | 0 | 40 | 115 | 1 | .45 | 75 | 0 | 40 | 115 | 1 | .45 | 75 | 0 | 40 | 115 | 1 | .45 | 75 | 0 | 40 | 115 | 1 | .45 | 75 | 0 | 65 | 140 | 2 | .47 | 75 | 0 | 65 | 140 | 2 | .47 |
| 201–300 | 75 | 0 | 40 | 115 | 1 | .50 | 75 | 0 | 40 | 115 | 1 | .50 | 75 | 0 | 40 | 115 | 1 | .50 | 75 | 0 | 80 | 155 | 2 | .54 | 75 | 0 | 80 | 155 | 2 | .54 | 75 | 0 | 80 | 155 | 2 | .54 |
| 301–400 | 80 | 0 | 45 | 125 | 1 | .52 | 80 | 0 | 45 | 125 | 1 | .52 | 80 | 0 | 85 | 165 | 2 | .57 | 80 | 0 | 85 | 165 | 2 | .57 | 80 | 0 | 120 | 200 | 3 | .62 | 80 | 0 | 120 | 200 | 3 | .62 |
| 401–500 | 85 | 0 | 50 | 135 | 1 | .53 | 85 | 0 | 50 | 135 | 1 | .53 | 85 | 0 | 90 | 175 | 2 | .60 | 85 | 0 | 125 | 210 | 3 | .64 | 85 | 0 | 125 | 210 | 3 | .64 | 85 | 0 | 160 | 245 | 4 | .69 |
| 501–600 | 85 | 0 | 50 | 135 | 1 | .54 | 85 | 0 | 50 | 135 | 1 | .54 | 85 | 0 | 95 | 180 | 2 | .62 | 85 | 0 | 130 | 215 | 3 | .67 | 85 | 1 | 170 | 255 | 4 | .72 | 135 | 1 | 185 | 320 | 6 | .76 |
| 601–800 | 90 | 0 | 50 | 140 | 1 | .55 | 90 | 0 | 95 | 185 | 2 | .55 | 90 | 0 | 135 | 225 | 3 | .70 | 90 | 0 | 170 | 260 | 4 | .74 | 140 | 1 | 195 | 335 | 6 | .79 | 140 | 1 | 210 | 350 | 7 | .81 |
| 801–1000 | 90 | 0 | 55 | 145 | 1 | .56 | 90 | 0 | 100 | 190 | 2 | .56 | 90 | 0 | 140 | 230 | 3 | .77 | 90 | 0 | 180 | 270 | 4 | .77 | 145 | 1 | 235 | 380 | 7 | .85 | 145 | 1 | 270 | 415 | 8 | .86 |
| 1001–2000 | 90 | 0 | 60 | 150 | 1 | .58 | 90 | 0 | 105 | 195 | 2 | .70 | 90 | 0 | 190 | 280 | 4 | .84 | 150 | 1 | 210 | 360 | 6 | .90 | 150 | 1 | 325 | 475 | 9 | 1.0 | 195 | 2 | 350 | 545 | 11 | 1.1 |
| 2001–3000 | 90 | 0 | 60 | 150 | 1 | .59 | 90 | 0 | 155 | 245 | 3 | .80 | 90 | 0 | 200 | 290 | 4 | .86 | 150 | 1 | 300 | 450 | 8 | 1.0 | 200 | 2 | 365 | 565 | 11 | 1.1 | 290 | 4 | 470 | 760 | 16 | 1.1 |
| 3001–4000 | 95 | 0 | 105 | 200 | 2 | .72 | 95 | 0 | 150 | 245 | 3 | .80 | 95 | 0 | 235 | 330 | 5 | .92 | 150 | 1 | 350 | 500 | 9 | 1.1 | 245 | 3 | 405 | 650 | 13 | 1.2 | 330 | 5 | 545 | 875 | 19 | 1.2 |
| 4001–5000 | 95 | 0 | 105 | 200 | 2 | .73 | 95 | 0 | 155 | 250 | 3 | .81 | 150 | 1 | 230 | 380 | 6 | .98 | 200 | 2 | 340 | 540 | 10 | 1.2 | 250 | 3 | 445 | 695 | 14 | 1.2 | 380 | 6 | 620 | 1000 | 22 | 1.3 |
| 5001–7000 | 95 | 0 | 105 | 200 | 2 | .73 | 95 | 0 | 155 | 250 | 3 | .81 | 150 | 1 | 230 | 380 | 6 | 1.0 | 200 | 2 | 385 | 585 | 11 | 1.2 | 250 | 3 | 530 | 780 | 16 | 1.3 | 380 | 6 | 700 | 1080 | 24 | 1.4 |
| 7001–10,000 | 95 | 0 | 105 | 200 | 2 | .73 | 95 | 0 | 155 | 250 | 3 | .81 | 150 | 1 | 275 | 425 | 7 | 1.0 | 200 | 2 | 425 | 625 | 12 | 1.2 | 250 | 3 | 575 | 825 | 17 | 1.3 | 425 | 7 | 785 | 1210 | 27 | 1.5 |
| 10,001–20,000 | 95 | 0 | 105 | 200 | 2 | .74 | 95 | 0 | 200 | 295 | 4 | .92 | 150 | 1 | 320 | 470 | 8 | 1.1 | 200 | 2 | 475 | 675 | 13 | 1.3 | 295 | 4 | 655 | 950 | 20 | 1.4 | 470 | 8 | 900 | 1370 | 31 | 1.6 |
| 20,001–50,000 | 95 | 0 | 105 | 200 | 2 | .74 | 95 | 0 | 200 | 295 | 4 | .93 | 150 | 1 | 365 | 515 | 9 | 1.2 | 200 | 2 | 515 | 715 | 14 | 1.3 | 295 | 4 | 755 | 1050 | 23 | 1.5 | 515 | 9 | 1165 | 1680 | 39 | 1.7 |
| 50,001–100,000 | 95 | 0 | 105 | 200 | 2 | .75 | 95 | 0 | 245 | 340 | 5 | 1.0 | 150 | 1 | 405 | 555 | 10 | 1.2 | 200 | 2 | 555 | 755 | 15 | 1.3 | 340 | 5 | 840 | 1180 | 26 | 1.6 | 515 | 9 | 1315 | 1830 | 43 | 1.8 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.

$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.

AOQL = Average Outgoing Quality Limit.

# TABLE II CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

## TABLE DL-4

**Lot Tolerance Per Cent Defective = 4.0%**

In every group: Trial 1 = ($n_1$, $c_1$); Trial 2 = ($n_2$, $n_1+n_2$, $c_2$).

### Process Average 0–.04%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 30 | 90 | 1 | .64 |
| 201-300 | 60 | 0 | 35 | 95 | 1 | .70 |
| 301-400 | 65 | 0 | 35 | 100 | 1 | .71 |
| 401-500 | 65 | 0 | 40 | 105 | 1 | .73 |
| 501-600 | 65 | 0 | 40 | 105 | 1 | .74 |
| 601-800 | 65 | 0 | 40 | 105 | 1 | .75 |
| 801-1000 | 70 | 0 | 40 | 110 | 1 | .76 |
| 1001-2000 | 70 | 0 | 40 | 110 | 1 | .78 |
| 2001-3000 | 70 | 0 | 80 | 150 | 2 | .95 |
| 3001-4000 | 70 | 0 | 80 | 150 | 2 | .96 |
| 4001-5000 | 70 | 0 | 80 | 150 | 2 | .97 |
| 5001-7000 | 70 | 0 | 80 | 150 | 2 | .98 |
| 7001-10,000 | 70 | 0 | 80 | 150 | 2 | .98 |
| 10,001-20,000 | 70 | 0 | 80 | 150 | 2 | .98 |
| 20,001-50,000 | 70 | 0 | 80 | 150 | 2 | .99 |
| 50,001-100,000 | 70 | 0 | 80 | 150 | 2 | .99 |

### Process Average .05–.40%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 30 | 90 | 1 | .64 |
| 201-300 | 60 | 0 | 35 | 95 | 1 | .70 |
| 301-400 | 65 | 0 | 35 | 100 | 1 | .71 |
| 401-500 | 65 | 0 | 70 | 135 | 2 | .83 |
| 501-600 | 65 | 0 | 75 | 140 | 2 | .85 |
| 601-800 | 65 | 0 | 75 | 140 | 2 | .87 |
| 801-1000 | 70 | 0 | 75 | 145 | 2 | .90 |
| 1001-2000 | 70 | 0 | 80 | 150 | 2 | .94 |
| 2001-3000 | 70 | 0 | 115 | 185 | 3 | 1.1 |
| 3001-4000 | 70 | 0 | 115 | 185 | 3 | 1.1 |
| 4001-5000 | 70 | 0 | 115 | 185 | 3 | 1.1 |
| 5001-7000 | 70 | 0 | 115 | 185 | 3 | 1.1 |
| 7001-10,000 | 70 | 0 | 150 | 220 | 4 | 1.2 |
| 10,001-20,000 | 70 | 0 | 150 | 220 | 4 | 1.2 |
| 20,001-50,000 | 70 | 0 | 150 | 220 | 4 | 1.2 |
| 50,001-100,000 | 70 | 0 | 185 | 255 | 5 | 1.3 |

### Process Average .41–.80%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 30 | 90 | 1 | .64 |
| 201-300 | 60 | 0 | 65 | 125 | 2 | .75 |
| 301-400 | 65 | 0 | 65 | 130 | 2 | .80 |
| 401-500 | 65 | 0 | 70 | 135 | 2 | .83 |
| 501-600 | 65 | 0 | 100 | 165 | 3 | .93 |
| 601-800 | 65 | 0 | 110 | 175 | 3 | .97 |
| 801-1000 | 70 | 0 | 105 | 175 | 3 | .98 |
| 1001-2000 | 70 | 0 | 145 | 215 | 4 | 1.1 |
| 2001-3000 | 70 | 0 | 180 | 250 | 5 | 1.2 |
| 3001-4000 | 110 | 1 | 175 | 285 | 6 | 1.3 |
| 4001-5000 | 115 | 1 | 170 | 285 | 6 | 1.3 |
| 5001-7000 | 115 | 1 | 205 | 320 | 7 | 1.4 |
| 7001-10,000 | 115 | 1 | 205 | 320 | 7 | 1.4 |
| 10,001-20,000 | 115 | 1 | 235 | 350 | 8 | 1.5 |
| 20,001-50,000 | 115 | 1 | 270 | 385 | 9 | 1.6 |
| 50,001-100,000 | 115 | 1 | 300 | 415 | 10 | 1.7 |

### Process Average .81–1.20%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 55 | 115 | 2 | .68 |
| 201-300 | 60 | 0 | 65 | 125 | 2 | .75 |
| 301-400 | 65 | 0 | 95 | 160 | 3 | .86 |
| 401-500 | 65 | 0 | 100 | 165 | 3 | .92 |
| 501-600 | 65 | 0 | 135 | 200 | 4 | 1.0 |
| 601-800 | 65 | 0 | 140 | 205 | 4 | 1.0 |
| 801-1000 | 110 | 1 | 155 | 265 | 6 | 1.2 |
| 1001-2000 | 110 | 1 | 195 | 305 | 7 | 1.3 |
| 2001-3000 | 110 | 1 | 260 | 370 | 9 | 1.4 |
| 3001-4000 | 150 | 2 | 255 | 405 | 10 | 1.5 |
| 4001-5000 | 150 | 2 | 285 | 435 | 11 | 1.6 |
| 5001-7000 | 150 | 2 | 320 | 470 | 11 | 1.7 |
| 7001-10,000 | 150 | 2 | 325 | 475 | 12 | 1.7 |
| 10,001-20,000 | 150 | 2 | 355 | 505 | 13 | 1.7 |
| 20,001-50,000 | 150 | 2 | 420 | 570 | 15 | 1.7 |
| 50,001-100,000 | 150 | 2 | 450 | 600 | 16 | 1.8 |

### Process Average 1.21–1.60%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 55 | 115 | 2 | .68 |
| 201-300 | 60 | 0 | 90 | 150 | 3 | .84 |
| 301-400 | 65 | 0 | 95 | 160 | 3 | .86 |
| 401-500 | 65 | 0 | 130 | 195 | 4 | .96 |
| 501-600 | 105 | 1 | 145 | 250 | 6 | 1.1 |
| 601-800 | 105 | 1 | 185 | 290 | 7 | 1.2 |
| 801-1000 | 110 | 1 | 210 | 320 | 8 | 1.2 |
| 1001-2000 | 150 | 2 | 240 | 390 | 10 | 1.5 |
| 2001-3000 | 185 | 3 | 305 | 490 | 13 | 1.6 |
| 3001-4000 | 185 | 3 | 340 | 525 | 14 | 1.6 |
| 4001-5000 | 185 | 3 | 395 | 580 | 16 | 1.7 |
| 5001-7000 | 185 | 3 | 435 | 620 | 17 | 1.7 |
| 7001-10,000 | 220 | 4 | 460 | 680 | 19 | 1.9 |
| 10,001-20,000 | 220 | 4 | 495 | 715 | 20 | 1.9 |
| 20,001-50,000 | 255 | 5 | 575 | 830 | 24 | 2.0 |
| 50,001-100,000 | 255 | 5 | 665 | 920 | 27 | 2.1 |

### Process Average 1.61–2.00%

| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-35 | All | 0 | – | – | – | 0 |
| 36-50 | 34 | 0 | – | – | – | .35 |
| 51-75 | 40 | 0 | – | – | – | .43 |
| 76-100 | 50 | 0 | 25 | 75 | 1 | .46 |
| 101-150 | 55 | 0 | 30 | 85 | 1 | .55 |
| 151-200 | 60 | 0 | 55 | 115 | 2 | .68 |
| 201-300 | 60 | 0 | 90 | 150 | 3 | .84 |
| 301-400 | 65 | 0 | 120 | 185 | 4 | .92 |
| 401-500 | 105 | 1 | 140 | 245 | 6 | 1.0 |
| 501-600 | 105 | 1 | 175 | 280 | 7 | 1.1 |
| 601-800 | 105 | 1 | 210 | 315 | 8 | 1.2 |
| 801-1000 | 145 | 2 | 230 | 375 | 10 | 1.3 |
| 1001-2000 | 180 | 3 | 295 | 475 | 13 | 1.6 |
| 2001-3000 | 220 | 4 | 410 | 630 | 18 | 1.7 |
| 3001-4000 | 285 | 6 | 465 | 750 | 22 | 1.8 |
| 4001-5000 | 285 | 6 | 520 | 805 | 24 | 1.9 |
| 5001-7000 | 320 | 6 | 585 | 905 | 27 | 2.0 |
| 7001-10,000 | 320 | 7 | 645 | 965 | 29 | 2.1 |
| 10,001-20,000 | 350 | 8 | 790 | 1140 | 35 | 2.2 |
| 20,001-50,000 | 385 | 9 | 895 | 1280 | 40 | 2.3 |
| 50,001-100,000 | 415 | 10 | 985 | 1400 | 44 | 2.4 |

## TABLE DL-5

### Lot Tolerance Per Cent Defective = 5.0%

| Lot Size | 0-05 n1 | c1 | n2 | n1+n2 | c2 | AOQL % | .06-.50 n1 | c1 | n2 | n1+n2 | c2 | AOQL % | .51-1.00 n1 | c1 | n2 | n1+n2 | c2 | AOQL % | 1.01-1.50 n1 | c1 | n2 | n1+n2 | c2 | AOQL % | 1.51-2.00 n1 | c1 | n2 | n1+n2 | c2 | AOQL % | 2.01-2.50 n1 | c1 | n2 | n1+n2 | c2 | AOQL % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 | All | 0 | — | — | — | 0 |
| 31-50 | 30 | 0 | — | — | — | .49 | 30 | 0 | — | — | — | .49 | 30 | 0 | — | — | — | .49 | 30 | 0 | — | — | — | .49 | 30 | 0 | — | — | — | .49 | 30 | 0 | — | — | — | .49 |
| 51-75 | 38 | 0 | — | — | — | .59 | 38 | 0 | — | — | — | .59 | 38 | 0 | — | — | — | .59 | 38 | 0 | — | — | — | .59 | 38 | 0 | — | — | — | .59 | 38 | 0 | — | — | — | .59 |
| 76-100 | 44 | 0 | 21 | 65 | 1 | .64 | 44 | 0 | 21 | 65 | 1 | .64 | 44 | 0 | 21 | 65 | 1 | .64 | 44 | 0 | 21 | 65 | 1 | .64 | 44 | 0 | 21 | 65 | 1 | .64 | 44 | 0 | 21 | 65 | 1 | .64 |
| 101-200 | 49 | 0 | 26 | 75 | 1 | .84 | 49 | 0 | 26 | 75 | 1 | .84 | 49 | 0 | 26 | 75 | 1 | .84 | 49 | 0 | 51 | 100 | 2 | .91 | 49 | 0 | 51 | 100 | 2 | .91 | 49 | 0 | 51 | 100 | 2 | .91 |
| 201-300 | 50 | 0 | 30 | 80 | 1 | .91 | 50 | 0 | 30 | 80 | 1 | .91 | 50 | 0 | 55 | 105 | 2 | 1.0 | 50 | 0 | 55 | 105 | 2 | 1.0 | 50 | 0 | 80 | 130 | 3 | 1.1 | 50 | 0 | 100 | 150 | 4 | 1.1 |
| 301-400 | 55 | 0 | 30 | 85 | 1 | .92 | 55 | 0 | 55 | 110 | 2 | 1.1 | 55 | 0 | 55 | 110 | 2 | 1.1 | 55 | 0 | 80 | 135 | 3 | 1.1 | 55 | 0 | 100 | 155 | 4 | 1.2 | 85 | 1 | 105 | 190 | 6 | 1.3 |
| 401-500 | 55 | 0 | 30 | 85 | 1 | .93 | 55 | 0 | 55 | 110 | 2 | 1.1 | 55 | 0 | 80 | 135 | 3 | 1.1 | 55 | 0 | 105 | 160 | 4 | 1.1 | 85 | 1 | 120 | 205 | 6 | 1.4 | 85 | 1 | 140 | 225 | 7 | 1.4 |
| 501-600 | 55 | 0 | 30 | 85 | 1 | .94 | 55 | 0 | 60 | 115 | 2 | 1.1 | 55 | 0 | 85 | 140 | 3 | 1.2 | 55 | 0 | 110 | 165 | 4 | 1.3 | 85 | 1 | 145 | 230 | 7 | 1.4 | 85 | 1 | 165 | 250 | 8 | 1.5 |
| 601-800 | 55 | 0 | 35 | 90 | 1 | .95 | 55 | 0 | 65 | 120 | 2 | 1.1 | 55 | 0 | 85 | 140 | 3 | 1.3 | 90 | 1 | 125 | 215 | 6 | 1.5 | 90 | 1 | 170 | 260 | 8 | 1.5 | 120 | 2 | 185 | 305 | 10 | 1.6 |
| 801-1000 | 55 | 0 | 35 | 90 | 1 | .96 | 55 | 0 | 65 | 120 | 2 | 1.1 | 55 | 0 | 115 | 170 | 4 | 1.3 | 90 | 1 | 150 | 240 | 7 | 1.5 | 90 | 1 | 200 | 290 | 9 | 1.6 | 120 | 2 | 210 | 330 | 11 | 1.7 |
| 1001-2000 | 55 | 0 | 35 | 90 | 1 | .98 | 55 | 0 | 95 | 150 | 3 | 1.3 | 55 | 0 | 120 | 175 | 4 | 1.4 | 90 | 1 | 185 | 275 | 8 | 1.7 | 120 | 2 | 225 | 345 | 11 | 1.9 | 175 | 4 | 260 | 435 | 15 | 2.0 |
| 2001-3000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 95 | 150 | 3 | 1.3 | 55 | 0 | 150 | 205 | 4 | 1.5 | 120 | 2 | 180 | 300 | 9 | 1.9 | 150 | 2 | 270 | 420 | 14 | 2.1 | 205 | 5 | 375 | 580 | 21 | 2.3 |
| 3001-4000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 95 | 150 | 3 | 1.3 | 90 | 1 | 140 | 230 | 6 | 1.6 | 120 | 2 | 210 | 330 | 10 | 2.0 | 150 | 3 | 295 | 445 | 15 | 2.3 | 230 | 6 | 420 | 650 | 24 | 2.4 |
| 4001-5000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 95 | 150 | 3 | 1.4 | 90 | 1 | 165 | 255 | 7 | 1.8 | 120 | 2 | 255 | 375 | 12 | 2.1 | 150 | 3 | 345 | 495 | 17 | 2.3 | 255 | 7 | 445 | 700 | 26 | 2.5 |
| 5001-7000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 95 | 150 | 3 | 1.4 | 90 | 1 | 165 | 255 | 7 | 1.8 | 120 | 2 | 260 | 380 | 12 | 2.1 | 150 | 3 | 370 | 520 | 18 | 2.3 | 255 | 7 | 495 | 750 | 28 | 2.6 |
| 7001-10,000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 120 | 175 | 4 | 1.5 | 90 | 1 | 190 | 280 | 8 | 1.9 | 120 | 2 | 285 | 405 | 13 | 2.1 | 175 | 4 | 370 | 545 | 19 | 2.4 | 280 | 8 | 540 | 820 | 31 | 2.7 |
| 10,001-20,000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 120 | 175 | 4 | 1.5 | 90 | 1 | 190 | 280 | 8 | 1.9 | 120 | 2 | 310 | 430 | 14 | 2.2 | 175 | 4 | 420 | 595 | 21 | 2.4 | 280 | 8 | 660 | 940 | 36 | 2.8 |
| 20,001-50,000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 150 | 205 | 5 | 1.7 | 90 | 1 | 215 | 305 | 9 | 2.0 | 120 | 2 | 335 | 455 | 15 | 2.2 | 205 | 5 | 485 | 690 | 25 | 2.5 | 305 | 9 | 745 | 1050 | 41 | 2.9 |
| 50,001-100,000 | 55 | 0 | 65 | 120 | 2 | 1.2 | 55 | 0 | 150 | 205 | 5 | 1.7 | 90 | 1 | 240 | 330 | 10 | 2.1 | 120 | 2 | 360 | 480 | 16 | 2.3 | 205 | 5 | 555 | 760 | 28 | 2.6 | 330 | 10 | 810 | 1140 | 45 | 3.0 |

n₁ = Size of First Sample; n₂ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.

c₁ = Allowable Defect Number for First Sample; c₂ = Allowable Defect Number for First and Second Samples Combined.

AOQL = Average Outgoing Quality Limit.

# TABLE II CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "LOT TOLERANCE PER CENT DEFECTIVE" AND CONSUMER'S RISK = 0.10

## TABLE DL-7

### Lot Tolerance Per Cent Defective = 7.0%

**Process Average % = 0-.07**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 16 | 50 | 1 | 1.1 |
| 111-200 | 36 | 0 | 19 | 55 | 1 | 1.2 |
| 201-300 | 37 | 0 | 23 | 60 | 1 | 1.3 |
| 301-400 | 38 | 0 | 22 | 60 | 1 | 1.3 |
| 401-500 | 39 | 0 | 21 | 60 | 1 | 1.3 |
| 501-600 | 39 | 0 | 26 | 65 | 1 | 1.3 |
| 601-800 | 39 | 0 | 26 | 65 | 1 | 1.4 |
| 801-1000 | 39 | 0 | 26 | 65 | 1 | 1.4 |
| 1001-2000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 2001-3000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 3001-4000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 4001-5000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 5001-7000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 7001-10,000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 10,001-20,000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 20,001-50,000 | 40 | 0 | 45 | 85 | 2 | 1.7 |
| 50,001-100,000 | 40 | 0 | 45 | 85 | 2 | 1.7 |

**Process Average % = .08-.70**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 16 | 50 | 1 | 1.1 |
| 111-200 | 36 | 0 | 19 | 55 | 1 | 1.2 |
| 201-300 | 37 | 0 | 23 | 60 | 1 | 1.3 |
| 301-400 | 38 | 0 | 42 | 80 | 2 | 1.5 |
| 401-500 | 39 | 0 | 41 | 80 | 2 | 1.5 |
| 501-600 | 39 | 0 | 46 | 85 | 2 | 1.6 |
| 601-800 | 39 | 0 | 46 | 85 | 2 | 1.6 |
| 801-1000 | 39 | 0 | 46 | 85 | 2 | 1.6 |
| 1001-2000 | 40 | 0 | 65 | 105 | 3 | 1.9 |
| 2001-3000 | 40 | 0 | 65 | 105 | 3 | 1.9 |
| 3001-4000 | 40 | 0 | 65 | 105 | 3 | 1.9 |
| 4001-5000 | 40 | 0 | 85 | 125 | 4 | 2.1 |
| 5001-7000 | 40 | 0 | 85 | 125 | 4 | 2.1 |
| 7001-10,000 | 40 | 0 | 85 | 125 | 4 | 2.1 |
| 10,001-20,000 | 40 | 0 | 85 | 125 | 4 | 2.1 |
| 20,001-50,000 | 40 | 0 | 105 | 145 | 5 | 2.3 |
| 50,001-100,000 | 40 | 0 | 105 | 145 | 5 | 2.3 |

**Process Average % = .71-1.40**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 16 | 50 | 1 | 1.1 |
| 111-200 | 36 | 0 | 39 | 75 | 2 | 1.4 |
| 201-300 | 37 | 0 | 38 | 75 | 2 | 1.5 |
| 301-400 | 38 | 0 | 57 | 95 | 3 | 1.7 |
| 401-500 | 39 | 0 | 61 | 100 | 3 | 1.7 |
| 501-600 | 39 | 0 | 61 | 100 | 3 | 1.7 |
| 601-800 | 39 | 0 | 81 | 120 | 4 | 1.9 |
| 801-1000 | 39 | 0 | 86 | 125 | 4 | 2.0 |
| 1001-2000 | 40 | 0 | 105 | 145 | 5 | 2.2 |
| 2001-3000 | 65 | 1 | 100 | 165 | 6 | 2.3 |
| 3001-4000 | 65 | 1 | 115 | 180 | 7 | 2.4 |
| 4001-5000 | 65 | 1 | 115 | 180 | 7 | 2.5 |
| 5001-7000 | 65 | 1 | 135 | 200 | 8 | 2.5 |
| 7001-10,000 | 65 | 1 | 135 | 200 | 8 | 2.6 |
| 10,001-20,000 | 65 | 1 | 155 | 220 | 9 | 2.7 |
| 20,001-50,000 | 65 | 1 | 170 | 235 | 10 | 2.8 |
| 50,001-100,000 | 65 | 1 | 170 | 235 | 10 | 2.9 |

**Process Average % = 1.41-2.10**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 31 | 65 | 2 | 1.2 |
| 111-200 | 36 | 0 | 54 | 90 | 3 | 1.5 |
| 201-300 | 37 | 0 | 58 | 95 | 3 | 1.6 |
| 301-400 | 38 | 0 | 77 | 115 | 4 | 1.8 |
| 401-500 | 39 | 0 | 76 | 115 | 4 | 1.8 |
| 501-600 | 65 | 1 | 90 | 155 | 6 | 2.1 |
| 601-800 | 65 | 1 | 105 | 170 | 7 | 2.2 |
| 801-1000 | 65 | 1 | 110 | 175 | 7 | 2.2 |
| 1001-2000 | 65 | 1 | 150 | 215 | 9 | 2.5 |
| 2001-3000 | 85 | 2 | 165 | 250 | 11 | 2.7 |
| 3001-4000 | 85 | 2 | 185 | 270 | 12 | 2.8 |
| 4001-5000 | 85 | 2 | 185 | 270 | 12 | 2.9 |
| 5001-7000 | 85 | 2 | 205 | 290 | 13 | 3.0 |
| 7001-10,000 | 85 | 2 | 205 | 290 | 13 | 3.1 |
| 10,001-20,000 | 85 | 2 | 220 | 305 | 14 | 3.2 |
| 20,001-50,000 | 85 | 2 | 240 | 325 | 15 | 3.3 |
| 50,001-100,000 | 105 | 3 | 270 | 375 | 18 | 3.4 |

**Process Average % = 2.11-2.80**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 31 | 65 | 2 | 1.2 |
| 111-200 | 36 | 0 | 54 | 90 | 3 | 1.5 |
| 201-300 | 37 | 0 | 73 | 110 | 4 | 1.7 |
| 301-400 | 60 | 1 | 85 | 145 | 6 | 1.9 |
| 401-500 | 60 | 1 | 105 | 165 | 7 | 2.1 |
| 501-600 | 65 | 1 | 120 | 185 | 8 | 2.1 |
| 601-800 | 65 | 1 | 140 | 205 | 9 | 2.3 |
| 801-1000 | 85 | 2 | 140 | 225 | 10 | 2.5 |
| 1001-2000 | 105 | 3 | 175 | 280 | 13 | 2.8 |
| 2001-3000 | 105 | 3 | 210 | 315 | 15 | 3.0 |
| 3001-4000 | 105 | 3 | 250 | 355 | 17 | 3.1 |
| 4001-5000 | 125 | 4 | 245 | 370 | 18 | 3.2 |
| 5001-7000 | 125 | 4 | 265 | 390 | 19 | 3.3 |
| 7001-10,000 | 125 | 4 | 300 | 425 | 21 | 3.4 |
| 10,001-20,000 | 125 | 4 | 335 | 460 | 23 | 3.2 |
| 20,001-50,000 | 145 | 5 | 360 | 505 | 26 | 3.3 |
| 50,001-100,000 | 165 | 6 | 390 | 555 | 29 | 3.7 |

**Process Average % = 2.81-3.50**

| Lot Size | Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | AOQL in % |
|---|---|---|---|---|---|---|
| 1-25 | All 24 | 0 | - | - | - | 0 |
| 26-50 | 24 | 0 | - | - | - | .80 |
| 51-75 | 31 | 0 | 15 | 46 | 1 | .90 |
| 76-110 | 34 | 0 | 31 | 65 | 2 | 1.2 |
| 111-200 | 36 | 0 | 69 | 105 | 4 | 1.5 |
| 201-300 | 60 | 1 | 80 | 140 | 6 | 1.9 |
| 301-400 | 60 | 1 | 100 | 160 | 7 | 2.0 |
| 401-500 | 60 | 1 | 135 | 195 | 9 | 2.2 |
| 501-600 | 85 | 2 | 130 | 215 | 10 | 2.3 |
| 601-800 | 85 | 2 | 165 | 250 | 12 | 2.5 |
| 801-1000 | 105 | 3 | 180 | 285 | 14 | 2.7 |
| 1001-2000 | 145 | 5 | 230 | 375 | 19 | 3.1 |
| 2001-3000 | 165 | 6 | 300 | 465 | 24 | 3.3 |
| 3001-4000 | 180 | 7 | 335 | 515 | 27 | 3.4 |
| 4001-5000 | 180 | 7 | 370 | 550 | 29 | 3.6 |
| 5001-7000 | 200 | 8 | 385 | 585 | 31 | 3.8 |
| 7001-10,000 | 200 | 8 | 450 | 650 | 35 | 3.9 |
| 10,001-20,000 | 220 | 9 | 485 | 705 | 38 | 4.0 |
| 20,001-50,000 | 220 | 9 | 565 | 785 | 43 | 4.1 |
| 50,001-100,000 | 235 | 10 | 610 | 845 | 47 | 4.2 |

## TABLE DL-10
### Lot Tolerance Per Cent Defective = 10.0%

| Lot Size | 0–.10 | | | | | | .11–1.00 | | | | | | 1.01–2.00 | | | | | | 2.01–3.00 | | | | | | 3.01–4.00 | | | | | | 4.01–5.00 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | AOQL % |
| 1–20 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 | All | 0 | – | – | – | 0 |
| 21–50 | 17 | 0 | – | – | – | 1.3 | 17 | 0 | – | – | – | 1.3 | 17 | 0 | – | – | – | 1.3 | 17 | 0 | – | – | – | 1.3 | 17 | 0 | – | – | – | 1.3 | 17 | 0 | – | – | – | 1.3 |
| 51–100 | 25 | 0 | 13 | 38 | 1 | 1.6 | 25 | 0 | 13 | 38 | 1 | 1.6 | 25 | 0 | 13 | 38 | 1 | 1.6 | 25 | 0 | 24 | 49 | 2 | 1.8 | 25 | 0 | 24 | 49 | 2 | 1.8 | 25 | 0 | 24 | 49 | 2 | 1.8 |
| 101–200 | 27 | 0 | 15 | 42 | 1 | 1.8 | 27 | 0 | 15 | 42 | 1 | 1.8 | 28 | 0 | 28 | 55 | 2 | 1.8 | 27 | 0 | 38 | 65 | 3 | 2.3 | 27 | 0 | 53 | 80 | 4 | 2.4 | 27 | 0 | 53 | 80 | 4 | 2.4 |
| 201–300 | 27 | 0 | 16 | 43 | 1 | 1.9 | 27 | 0 | 30 | 57 | 2 | 2.2 | 27 | 0 | 43 | 70 | 3 | 2.4 | 27 | 0 | 53 | 80 | 4 | 2.7 | 43 | 1 | 62 | 105 | 6 | 2.8 | 43 | 1 | 82 | 125 | 8 | 3.0 |
| 301–400 | 27 | 0 | 17 | 44 | 1 | 1.9 | 27 | 0 | 33 | 60 | 2 | 2.2 | 27 | 0 | 43 | 70 | 3 | 2.5 | 44 | 1 | 66 | 110 | 6 | 2.9 | 44 | 1 | 86 | 130 | 8 | 3.1 | 60 | 2 | 90 | 150 | 10 | 3.2 |
| 401–500 | 28 | 0 | 16 | 44 | 1 | 1.9 | 28 | 0 | 32 | 60 | 2 | 2.3 | 28 | 0 | 57 | 85 | 4 | 2.7 | 44 | 1 | 76 | 120 | 7 | 3.1 | 44 | 1 | 101 | 145 | 9 | 3.3 | 60 | 2 | 105 | 165 | 11 | 3.4 |
| 501–600 | 28 | 0 | 17 | 45 | 1 | 1.9 | 28 | 0 | 32 | 60 | 2 | 2.3 | 28 | 0 | 57 | 85 | 4 | 2.8 | 45 | 1 | 75 | 120 | 7 | 3.3 | 60 | 2 | 100 | 160 | 10 | 3.4 | 75 | 3 | 115 | 190 | 13 | 3.6 |
| 601–800 | 28 | 0 | 17 | 45 | 1 | 2.0 | 28 | 0 | 47 | 75 | 3 | 2.6 | 28 | 0 | 57 | 85 | 4 | 2.9 | 45 | 1 | 90 | 135 | 8 | 3.5 | 60 | 2 | 110 | 170 | 11 | 3.7 | 75 | 3 | 140 | 215 | 15 | 3.9 |
| 801–1000 | 28 | 0 | 32 | 60 | 2 | 2.3 | 28 | 0 | 47 | 75 | 3 | 2.6 | 28 | 0 | 72 | 100 | 5 | 3.0 | 45 | 1 | 90 | 135 | 8 | 3.5 | 60 | 2 | 125 | 185 | 12 | 3.9 | 90 | 4 | 150 | 240 | 17 | 4.1 |
| 1001–2000 | 28 | 0 | 32 | 60 | 2 | 2.4 | 28 | 0 | 47 | 75 | 3 | 2.7 | 45 | 1 | 70 | 115 | 6 | 3.3 | 60 | 2 | 105 | 165 | 10 | 3.9 | 75 | 3 | 150 | 225 | 15 | 4.3 | 115 | 6 | 200 | 315 | 23 | 4.8 |
| 2001–3000 | 28 | 0 | 32 | 60 | 2 | 2.4 | 28 | 0 | 47 | 75 | 3 | 2.7 | 45 | 1 | 85 | 130 | 7 | 3.5 | 60 | 2 | 130 | 190 | 12 | 4.1 | 75 | 3 | 175 | 250 | 17 | 4.4 | 130 | 7 | 235 | 365 | 27 | 5.0 |
| 3001–4000 | 28 | 0 | 32 | 60 | 2 | 2.4 | 28 | 0 | 62 | 90 | 4 | 2.9 | 45 | 1 | 85 | 130 | 7 | 3.5 | 60 | 2 | 130 | 190 | 12 | 4.2 | 90 | 4 | 170 | 260 | 18 | 4.6 | 130 | 7 | 255 | 385 | 29 | 5.1 |
| 4001–5000 | 28 | 0 | 32 | 60 | 2 | 2.4 | 28 | 0 | 62 | 90 | 4 | 3.0 | 45 | 1 | 95 | 140 | 8 | 3.7 | 60 | 2 | 140 | 200 | 13 | 4.3 | 90 | 4 | 180 | 270 | 19 | 4.7 | 140 | 8 | 270 | 410 | 31 | 5.2 |
| 5001–7000 | 28 | 0 | 32 | 60 | 2 | 2.5 | 28 | 0 | 62 | 90 | 4 | 3.0 | 45 | 1 | 95 | 140 | 8 | 3.8 | 60 | 2 | 140 | 200 | 13 | 4.4 | 90 | 4 | 205 | 295 | 21 | 4.9 | 140 | 8 | 315 | 455 | 35 | 5.3 |
| 7001–10,000 | 28 | 0 | 32 | 60 | 2 | 2.5 | 28 | 0 | 62 | 90 | 4 | 3.0 | 45 | 1 | 95 | 140 | 8 | 3.8 | 60 | 2 | 155 | 215 | 14 | 4.4 | 90 | 4 | 220 | 310 | 22 | 5.0 | 140 | 8 | 340 | 480 | 38 | 5.4 |
| 10,001–20,000 | 28 | 0 | 32 | 60 | 2 | 2.5 | 28 | 0 | 62 | 90 | 4 | 3.0 | 45 | 1 | 110 | 155 | 9 | 3.9 | 60 | 2 | 165 | 225 | 15 | 4.4 | 100 | 5 | 230 | 330 | 24 | 5.1 | 155 | 9 | 370 | 525 | 41 | 5.6 |
| 20,001–50,000 | 28 | 0 | 32 | 60 | 2 | 2.5 | 28 | 0 | 72 | 100 | 5 | 3.3 | 45 | 1 | 120 | 165 | 10 | 3.9 | 75 | 3 | 165 | 240 | 16 | 4.5 | 100 | 5 | 280 | 380 | 28 | 5.2 | 165 | 10 | 405 | 570 | 45 | 5.7 |
| 50,001–100,000 | 28 | 0 | 32 | 60 | 2 | 2.5 | 28 | 0 | 72 | 100 | 5 | 3.3 | 45 | 1 | 135 | 180 | 11 | 4.2 | 75 | 3 | 200 | 275 | 19 | 4.8 | 115 | 6 | 285 | 400 | 30 | 5.3 | 165 | 10 | 440 | 605 | 48 | 6.2 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected
$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.
AOQL = Average Outgoing Quality Limit.

## TABLE III: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-0.1
AVERAGE OUTGOING QUALITY LIMIT = 0.1%

| Process Average % | 0–.002 | | | .003–.020 | | | .021–.040 | | | .041–.060 | | | .061–.080 | | | .081–.100 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–75 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 76–95 | 75 | 0 | 1.5 | 75 | 0 | 1.5 | 75 | 0 | 1.5 | 75 | 0 | 1.5 | 75 | 0 | 1.5 | 75 | 0 | 1.5 |
| 96–130 | 95 | 0 | 1.4 | 95 | 0 | 1.4 | 95 | 0 | 1.4 | 95 | 0 | 1.4 | 95 | 0 | 1.4 | 95 | 0 | 1.4 |
| 131–200 | 130 | 0 | 1.2 | 130 | 0 | 1.2 | 130 | 0 | 1.2 | 130 | 0 | 1.2 | 130 | 0 | 1.2 | 130 | 0 | 1.2 |
| 201–300 | 165 | 0 | 1.1 | 165 | 0 | 1.1 | 165 | 0 | 1.1 | 165 | 0 | 1.1 | 165 | 0 | 1.1 | 165 | 0 | 1.1 |
| 301–400 | 190 | 0 | .96 | 190 | 0 | .96 | 190 | 0 | .96 | 190 | 0 | .96 | 190 | 0 | .96 | 190 | 0 | .96 |
| 401–500 | 210 | 0 | .91 | 210 | 0 | .91 | 210 | 0 | .91 | 210 | 0 | .91 | 210 | 0 | .91 | 210 | 0 | .91 |
| 501–600 | 230 | 0 | .86 | 230 | 0 | .86 | 230 | 0 | .86 | 230 | 0 | .86 | 230 | 0 | .86 | 230 | 0 | .86 |
| 601–800 | 250 | 0 | .81 | 250 | 0 | .81 | 250 | 0 | .81 | 250 | 0 | .81 | 250 | 0 | .81 | 250 | 0 | .81 |
| 801–1000 | 270 | 0 | .76 | 270 | 0 | .76 | 270 | 0 | .76 | 270 | 0 | .76 | 270 | 0 | .76 | 270 | 0 | .76 |
| 1001–2000 | 310 | 0 | .71 | 310 | 0 | .71 | 310 | 0 | .71 | 310 | 0 | .71 | 310 | 0 | .71 | 310 | 0 | .71 |
| 2001–3000 | 330 | 0 | .67 | 330 | 0 | .67 | 330 | 0 | .67 | 330 | 0 | .67 | 330 | 0 | .67 | 655 | 1 | .64 |
| 3001–4000 | 340 | 0 | .64 | 340 | 0 | .64 | 340 | 0 | .64 | 695 | 1 | .59 | 695 | 1 | .59 | 695 | 1 | .59 |
| 4001–5000 | 345 | 0 | .62 | 345 | 0 | .62 | 345 | 0 | .62 | 720 | 1 | .54 | 720 | 1 | .54 | 720 | 1 | .54 |
| 5001–7000 | 350 | 0 | .61 | 350 | 0 | .61 | 750 | 1 | .51 | 750 | 1 | .51 | 750 | 1 | .51 | 750 | 1 | .51 |
| 7001–10,000 | 355 | 0 | .60 | 355 | 0 | .60 | 775 | 1 | .49 | 775 | 1 | .49 | 775 | 1 | .49 | 1210 | 2 | .44 |
| 10,001–20,000 | 360 | 0 | .59 | 810 | 1 | .48 | 810 | 1 | .48 | 1280 | 2 | .42 | 1280 | 2 | .42 | 1770 | 3 | .38 |
| 20,001–50,000 | 365 | 0 | .58 | 830 | 1 | .47 | 1330 | 2 | .41 | 1870 | 3 | .37 | 2420 | 4 | .34 | 2980 | 5 | .33 |
| 50,001–100,000 | 365 | 0 | .58 | 835 | 1 | .46 | 1350 | 2 | .40 | 2480 | 4 | .33 | 3070 | 5 | .32 | 4270 | 7 | .30 |

### TABLE SA-0.25
AVERAGE OUTGOING QUALITY LIMIT = 0.25%

| Process Average % | 0–.005 | | | .006–.050 | | | .051–.100 | | | .101–.150 | | | .151–.200 | | | .201–.250 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–60 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 61–100 | 60 | 0 | 2.5 | 60 | 0 | 2.5 | 60 | 0 | 2.5 | 60 | 0 | 2.5 | 60 | 0 | 2.5 | 60 | 0 | 2.5 |
| 101–200 | 85 | 0 | 2.1 | 85 | 0 | 2.1 | 85 | 0 | 2.1 | 85 | 0 | 2.1 | 85 | 0 | 2.1 | 85 | 0 | 2.1 |
| 201–300 | 100 | 0 | 1.9 | 100 | 0 | 1.9 | 100 | 0 | 1.9 | 100 | 0 | 1.9 | 100 | 0 | 1.9 | 100 | 0 | 1.9 |
| 301–400 | 110 | 0 | 1.8 | 110 | 0 | 1.8 | 110 | 0 | 1.8 | 110 | 0 | 1.8 | 110 | 0 | 1.8 | 110 | 0 | 1.8 |
| 401–500 | 115 | 0 | 1.8 | 115 | 0 | 1.8 | 115 | 0 | 1.8 | 115 | 0 | 1.8 | 115 | 0 | 1.8 | 115 | 0 | 1.8 |
| 501–600 | 120 | 0 | 1.7 | 120 | 0 | 1.7 | 120 | 0 | 1.7 | 120 | 0 | 1.7 | 120 | 0 | 1.7 | 120 | 0 | 1.7 |
| 601–800 | 125 | 0 | 1.7 | 125 | 0 | 1.7 | 125 | 0 | 1.7 | 125 | 0 | 1.7 | 125 | 0 | 1.7 | 125 | 0 | 1.7 |
| 801–1000 | 130 | 0 | 1.7 | 130 | 0 | 1.7 | 130 | 0 | 1.7 | 130 | 0 | 1.7 | 130 | 0 | 1.7 | 250 | 1 | 1.4 |
| 1001–2000 | 135 | 0 | 1.6 | 135 | 0 | 1.6 | 135 | 0 | 1.6 | 290 | 1 | 1.3 | 290 | 1 | 1.3 | 290 | 1 | 1.3 |
| 2001–3000 | 140 | 0 | 1.6 | 140 | 0 | 1.6 | 300 | 1 | 1.3 | 300 | 1 | 1.3 | 300 | 1 | 1.3 | 300 | 1 | 1.3 |
| 3001–4000 | 140 | 0 | 1.6 | 140 | 0 | 1.6 | 310 | 1 | 1.3 | 310 | 1 | 1.3 | 310 | 1 | 1.3 | 485 | 2 | 1.1 |
| 4001–5000 | 145 | 0 | 1.6 | 145 | 0 | 1.6 | 315 | 1 | 1.2 | 315 | 1 | 1.2 | 495 | 2 | 1.1 | 495 | 2 | 1.1 |
| 5001–7000 | 145 | 0 | 1.6 | 320 | 1 | 1.2 | 320 | 1 | 1.2 | 510 | 2 | 1.0 | 510 | 2 | 1.0 | 700 | 3 | .94 |
| 7001–10,000 | 145 | 0 | 1.6 | 325 | 1 | 1.2 | 325 | 1 | 1.2 | 520 | 2 | 1.0 | 720 | 3 | .91 | 720 | 3 | .91 |
| 10,001–20,000 | 145 | 0 | 1.6 | 330 | 1 | 1.2 | 535 | 2 | 1.0 | 750 | 3 | .89 | 970 | 4 | .81 | 1190 | 5 | .75 |
| 20,001–50,000 | 145 | 0 | 1.6 | 335 | 1 | 1.2 | 545 | 2 | 1.0 | 995 | 4 | .80 | 1240 | 5 | .74 | 1980 | 8 | .66 |
| 50,001–100,000 | 335 | 1 | 1.2 | 545 | 2 | 1.0 | 775 | 3 | .87 | 1250 | 5 | .73 | 1750 | 7 | .67 | 2810 | 11 | .62 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_C) = 0.10$.

## TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-0.5
AVERAGE OUTGOING QUALITY LIMIT = 0.5%

| Process Average % | 0–.010 | | | .011–.10 | | | .11–.20 | | | .21–.30 | | | .31–.40 | | | 41.–.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–30 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 31–50 | 30 | 0 | 5.0 | 30 | 0 | 5.0 | 30 | 0 | 5.0 | 30 | 0 | 5.0 | 30 | 0 | 5.0 | 30 | 0 | 5.0 |
| 51–100 | 42 | 0 | 4.2 | 42 | 0 | 4.2 | 42 | 0 | 4.2 | 42 | 0 | 4.2 | 42 | 0 | 4.2 | 42 | 0 | 4.2 |
| 101–200 | 55 | 0 | 3.6 | 55 | 0 | 3.6 | 55 | 0 | 3.6 | 55 | 0 | 3.6 | 55 | 0 | 3.6 | 55 | 0 | 3.6 |
| 201–300 | 60 | 0 | 3.4 | 60 | 0 | 3.4 | 60 | 0 | 3.4 | 60 | 0 | 3.4 | 60 | 0 | 3.4 | 60 | 0 | 3.4 |
| 301–400 | 60 | 0 | 3.5 | 60 | 0 | 3.5 | 60 | 0 | 3.5 | 60 | 0 | 3.5 | 60 | 0 | 3.5 | 60 | 0 | 3.5 |
| 401–500 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 125 | 1 | 2.9 |
| 501–600 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 65 | 0 | 3.3 | 130 | 1 | 2.7 | 130 | 1 | 2.7 |
| 601–800 | 65 | 0 | 3.4 | 65 | 0 | 3.4 | 65 | 0 | 3.4 | 140 | 1 | 2.6 | 140 | 1 | 2.6 | 140 | 1 | 2.6 |
| 801–1000 | 70 | 0 | 3.2 | 70 | 0 | 3.2 | 70 | 0 | 3.2 | 145 | 1 | 2.6 | 145 | 1 | 2.6 | 145 | 1 | 2.6 |
| 1001–2000 | 70 | 0 | 3.2 | 70 | 0 | 3.2 | 155 | 1 | 2.5 | 155 | 1 | 2.5 | 155 | 1 | 2.5 | 240 | 2 | 2.2 |
| 2001–3000 | 70 | 0 | 3.3 | 70 | 0 | 3.3 | 160 | 1 | 2.4 | 160 | 1 | 2.4 | 250 | 2 | 2.1 | 250 | 2 | 2.1 |
| 3001–4000 | 70 | 0 | 3.3 | 160 | 1 | 2.4 | 160 | 1 | 2.4 | 255 | 2 | 2.1 | 255 | 2 | 2.1 | 355 | 3 | 1.9 |
| 4001–5000 | 75 | 0 | 3.0 | 165 | 1 | 2.4 | 165 | 1 | 2.4 | 260 | 2 | 2.0 | 360 | 3 | 1.9 | 460 | 4 | 1.7 |
| 5001–7000 | 75 | 0 | 3.0 | 165 | 1 | 2.4 | 265 | 2 | 2.0 | 265 | 2 | 2.0 | 370 | 3 | 1.8 | 475 | 4 | 1.7 |
| 7001–10,000 | 75 | 0 | 3.1 | 165 | 1 | 2.4 | 265 | 2 | 2.0 | 375 | 3 | 1.8 | 485 | 4 | 1.7 | 595 | 5 | 1.6 |
| 10,001–20,000 | 75 | 0 | 3.1 | 165 | 1 | 2.4 | 270 | 2 | 1.9 | 380 | 3 | 1.7 | 615 | 5 | 1.5 | 855 | 7 | 1.4 |
| 20,001–50,000 | 170 | 1 | 2.3 | 275 | 2 | 1.9 | 390 | 3 | 1.7 | 625 | 5 | 1.5 | 875 | 7 | 1.3 | 1410 | 11 | 1.2 |
| 50,001–100,000 | 170 | 1 | 2.3 | 275 | 2 | 1.9 | 510 | 4 | 1.6 | 755 | 6 | 1.4 | 1290 | 10 | 1.2 | 2130 | 16 | 1.1 |

### TABLE SA-0.75
AVERAGE OUTGOING QUALITY LIMIT = 0.75%

| Process Average % | 0–.015 | | | .016–.15 | | | .16–.30 | | | .31–.45 | | | .46–.60 | | | .61–.75 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–25 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 26–50 | 25 | 0 | 6.4 | 25 | 0 | 6.4 | 25 | 0 | 6.4 | 25 | 0 | 6.4 | 25 | 0 | 6.4 | 25 | 0 | 6.4 |
| 51–100 | 33 | 0 | 5.6 | 33 | 0 | 5.6 | 33 | 0 | 5.6 | 33 | 0 | 5.6 | 33 | 0 | 5.6 | 33 | 0 | 5.6 |
| 101–200 | 39 | 0 | 5.2 | 39 | 0 | 5.2 | 39 | 0 | 5.2 | 39 | 0 | 5.2 | 39 | 0 | 5.2 | 39 | 0 | 5.2 |
| 201–300 | 42 | 0 | 5.0 | 42 | 0 | 5.0 | 42 | 0 | 5.0 | 42 | 0 | 5.0 | 42 | 0 | 5.0 | 42 | 0 | 5.0 |
| 301–400 | 44 | 0 | 4.9 | 44 | 0 | 4.9 | 44 | 0 | 4.9 | 44 | 0 | 4.9 | 90 | 1 | 4.0 | 90 | 1 | 4.0 |
| 401–500 | 45 | 0 | 4.8 | 45 | 0 | 4.8 | 45 | 0 | 4.8 | 90 | 1 | 4.1 | 90 | 1 | 4.1 | 90 | 1 | 4.1 |
| 501–600 | 45 | 0 | 4.9 | 45 | 0 | 4.9 | 45 | 0 | 4.9 | 95 | 1 | 3.9 | 95 | 1 | 3.9 | 95 | 1 | 3.9 |
| 601–800 | 46 | 0 | 4.9 | 46 | 0 | 4.9 | 100 | 1 | 3.8 | 100 | 1 | 3.8 | 100 | 1 | 3.8 | 100 | 1 | 3.8 |
| 801–1000 | 47 | 0 | 4.8 | 47 | 0 | 4.8 | 100 | 1 | 3.8 | 100 | 1 | 3.8 | 100 | 1 | 3.8 | 155 | 2 | 3.2 |
| 1001–2000 | 48 | 0 | 4.7 | 48 | 0 | 4.7 | 105 | 1 | 3.7 | 105 | 1 | 3.7 | 170 | 2 | 3.1 | 170 | 2 | 3.1 |
| 2001–3000 | 48 | 0 | 4.7 | 110 | 1 | 3.5 | 110 | 1 | 3.5 | 170 | 2 | 3.1 | 170 | 2 | 3.1 | 240 | 3 | 2.8 |
| 3001–4000 | 48 | 0 | 4.7 | 110 | 1 | 3.5 | 110 | 1 | 3.5 | 175 | 2 | 3.1 | 245 | 3 | 2.7 | 315 | 4 | 2.5 |
| 4001–5000 | 49 | 0 | 4.6 | 110 | 1 | 3.6 | 175 | 2 | 3.1 | 175 | 2 | 3.1 | 245 | 3 | 2.7 | 320 | 4 | 2.5 |
| 5001–7000 | 49 | 0 | 4.6 | 110 | 1 | 3.6 | 180 | 2 | 3.0 | 250 | 3 | 2.7 | 325 | 4 | 2.5 | 400 | 5 | 2.3 |
| 7001–10,000 | 49 | 0 | 4.6 | 110 | 1 | 3.7 | 180 | 2 | 3.0 | 255 | 3 | 2.6 | 405 | 5 | 2.3 | 560 | 7 | 2.1 |
| 10,001–20,000 | 49 | 0 | 4.6 | 110 | 1 | 3.7 | 255 | 3 | 2.6 | 335 | 4 | 2.4 | 495 | 6 | 2.1 | 750 | 9 | 1.9 |
| 20,001–50,000 | 110 | 1 | 3.7 | 180 | 2 | 3.0 | 260 | 3 | 2.6 | 420 | 5 | 2.2 | 675 | 8 | 1.9 | 1130 | 13 | 1.6 |
| 50,001–100,000 | 110 | 1 | 3.7 | 185 | 2 | 2.9 | 335 | 4 | 2.4 | 590 | 7 | 2.0 | 955 | 11 | 1.7 | 1720 | 19 | 1.5 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_c) = 0.10$.

## TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-1.0
AVERAGE OUTGOING QUALITY LIMIT = 1.0%

| Process Average % | 0–.02 | | | .03–.20 | | | .21–.40 | | | .41–.60 | | | .61–.80 | | | .81–1.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–25 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 26–50 | 22 | 0 | 7.7 | 22 | 0 | 7.7 | 22 | 0 | 7.7 | 22 | 0 | 7.7 | 22 | 0 | 7.7 | 22 | 0 | 7.7 |
| 51–100 | 27 | 0 | 7.1 | 27 | 0 | 7.1 | 27 | 0 | 7.1 | 27 | 0 | 7.1 | 27 | 0 | 7.1 | 27 | 0 | 7.1 |
| 101–200 | 32 | 0 | 6.4 | 32 | 0 | 6.4 | 32 | 0 | 6.4 | 32 | 0 | 6.4 | 32 | 0 | 6.4 | 32 | 0 | 6.4 |
| 201–300 | 33 | 0 | 6.3 | 33 | 0 | 6.3 | 33 | 0 | 6.3 | 33 | 0 | 6.3 | 33 | 0 | 6.3 | 65 | 1 | 5.0 |
| 301–400 | 34 | 0 | 6.1 | 34 | 0 | 6.1 | 34 | 0 | 6.1 | 70 | 1 | 4.6 | 70 | 1 | 4.6 | 70 | 1 | 4.6 |
| 401–500 | 35 | 0 | 6.1 | 35 | 0 | 6.1 | 35 | 0 | 6.1 | 70 | 1 | 4.7 | 70 | 1 | 4.7 | 70 | 1 | 4.7 |
| 501–600 | 35 | 0 | 6.1 | 35 | 0 | 6.1 | 75 | 1 | 4.4 | 75 | 1 | 4.4 | 75 | 1 | 4.4 | 75 | 1 | 4.4 |
| 601–800 | 35 | 0 | 6.2 | 35 | 0 | 6.2 | 75 | 1 | 4.4 | 75 | 1 | 4.4 | 75 | 1 | 4.4 | 120 | 2 | 4.2 |
| 801–1000 | 35 | 0 | 6.3 | 35 | 0 | 6.3 | 80 | 1 | 4.4 | 80 | 1 | 4.4 | 120 | 2 | 4.3 | 120 | 2 | 4.3 |
| 1001–2000 | 36 | 0 | 6.2 | 80 | 1 | 4.5 | 80 | 1 | 4.5 | 130 | 2 | 4.0 | 130 | 2 | 4.0 | 180 | 3 | 3.7 |
| 2001–3000 | 36 | 0 | 6.2 | 80 | 1 | 4.6 | 80 | 1 | 4.6 | 130 | 2 | 4.0 | 185 | 3 | 3.6 | 235 | 4 | 3.3 |
| 3001–4000 | 36 | 0 | 6.2 | 80 | 1 | 4.7 | 135 | 2 | 3.9 | 135 | 2 | 3.9 | 185 | 3 | 3.6 | 295 | 5 | 3.1 |
| 4001–5000 | 36 | 0 | 6.2 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 190 | 3 | 3.5 | 245 | 4 | 3.2 | 300 | 5 | 3.1 |
| 5001–7000 | 37 | 0 | 6.1 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 190 | 3 | 3.5 | 305 | 5 | 3.0 | 420 | 7 | 2.8 |
| 7001–10,000 | 37 | 0 | 6.2 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 245 | 4 | 3.2 | 310 | 5 | 3.0 | 430 | 7 | 2.7 |
| 10,001–20,000 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 195 | 3 | 3.4 | 250 | 4 | 3.2 | 435 | 7 | 2.4 | 635 | 10 | 2.4 |
| 20,001–50,000 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 255 | 4 | 3.1 | 380 | 6 | 2.8 | 575 | 9 | 2.5 | 990 | 15 | 2.1 |
| 50,001–100,000 | 85 | 1 | 4.6 | 135 | 2 | 3.9 | 255 | 4 | 3.1 | 445 | 7 | 2.6 | 790 | 12 | 2.3 | 1520 | 22 | 1.9 |

### TABLE SA-1.5
AVERAGE OUTGOING QUALITY LIMIT = 1.5%

| Process Average % | 0–.03 | | | .04–.30 | | | .31–.60 | | | .61–.90 | | | .91–1.20 | | | 1.21–1.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–15 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 16–50 | 16 | 0 | 11.6 | 16 | 0 | 11.6 | 16 | 0 | 11.6 | 16 | 0 | 11.6 | 16 | 0 | 11.6 | 16 | 0 | 11.6 |
| 51–100 | 20 | 0 | 9.8 | 20 | 0 | 9.8 | 20 | 0 | 9.8 | 20 | 0 | 9.8 | 20 | 0 | 9.8 | 20 | 0 | 9.8 |
| 101–200 | 22 | 0 | 9.5 | 22 | 0 | 9.5 | 22 | 0 | 9.5 | 22 | 0 | 9.5 | 22 | 0 | 9.5 | 44 | 1 | 8.2 |
| 201–300 | 23 | 0 | 9.2 | 23 | 0 | 9.2 | 23 | 0 | 9.2 | 47 | 1 | 7.9 | 47 | 1 | 7.9 | 47 | 1 | 7.9 |
| 301–400 | 23 | 0 | 9.3 | 23 | 0 | 9.3 | 49 | 1 | 7.8 | 49 | 1 | 7.8 | 49 | 1 | 7.8 | 49 | 1 | 7.8 |
| 401–500 | 23 | 0 | 9.4 | 23 | 0 | 9.4 | 50 | 1 | 7.7 | 50 | 1 | 7.7 | 50 | 1 | 7.7 | 50 | 1 | 7.7 |
| 501–600 | 24 | 0 | 9.0 | 24 | 0 | 9.0 | 50 | 1 | 7.7 | 50 | 1 | 7.7 | 50 | 1 | 7.7 | 50 | 1 | 7.7 |
| 601–800 | 24 | 0 | 9.1 | 24 | 0 | 9.1 | 50 | 1 | 7.8 | 50 | 1 | 7.8 | 80 | 2 | 6.4 | 80 | 2 | 6.4 |
| 801–1000 | 24 | 0 | 9.1 | 55 | 1 | 7.0 | 55 | 1 | 7.0 | 85 | 2 | 6.2 | 85 | 2 | 6.2 | 85 | 2 | 6.2 |
| 1001–2000 | 24 | 0 | 9.1 | 55 | 1 | 7.0 | 55 | 1 | 7.0 | 85 | 2 | 6.2 | 120 | 3 | 5.4 | 155 | 4 | 5.0 |
| 2001–3000 | 24 | 0 | 9.2 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 125 | 3 | 5.3 | 160 | 4 | 4.9 | 200 | 5 | 4.6 |
| 3001–4000 | 24 | 0 | 9.2 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 125 | 3 | 5.3 | 165 | 4 | 4.8 | 240 | 6 | 4.4 |
| 4001–5000 | 24 | 0 | 9.2 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 125 | 3 | 5.3 | 205 | 5 | 4.6 | 280 | 7 | 4.2 |
| 5001–7000 | 24 | 0 | 9.2 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 165 | 4 | 4.8 | 205 | 5 | 4.6 | 325 | 8 | 4.0 |
| 7001–10,000 | 24 | 0 | 9.2 | 55 | 1 | 7.1 | 130 | 3 | 5.2 | 165 | 4 | 4.8 | 250 | 6 | 4.2 | 375 | 9 | 3.8 |
| 10,001–20,000 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 130 | 3 | 5.2 | 210 | 5 | 4.4 | 340 | 8 | 3.8 | 515 | 12 | 3.4 |
| 20,001–50,000 | 55 | 1 | 7.1 | 90 | 2 | 5.9 | 170 | 4 | 4.7 | 295 | 7 | 4.0 | 480 | 11 | 3.5 | 860 | 19 | 3.0 |
| 50,001–100,000 | 55 | 1 | 7.1 | 130 | 3 | 5.2 | 210 | 5 | 4.4 | 340 | 8 | 3.8 | 625 | 14 | 3.3 | 1120 | 24 | 2.8 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
pt = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_C) = 0.10$.

## TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-2.0
AVERAGE OUTGOING QUALITY LIMIT = 2.0%

| Process Average % | 0–.04 | | | .05–.40 | | | .41–.80 | | | .81–1.20 | | | 1.21–1.60 | | | 1.61–2.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–15 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 16–50 | 14 | 0 | 13.6 | 14 | 0 | 13.6 | 14 | 0 | 13.6 | 14 | 0 | 13.6 | 14 | 0 | 13.6 | 14 | 0 | 13.6 |
| 51–100 | 16 | 0 | 12.4 | 16 | 0 | 12.4 | 16 | 0 | 12.4 | 16 | 0 | 12.4 | 16 | 0 | 12.4 | 16 | 0 | 12.4 |
| 101–200 | 17 | 0 | 12.2 | 17 | 0 | 12.2 | 17 | 0 | 12.2 | 17 | 0 | 12.2 | 35 | 1 | 10.5 | 35 | 1 | 10.5 |
| 201–300 | 17 | 0 | 12.3 | 17 | 0 | 12.3 | 17 | 0 | 12.3 | 37 | 1 | 10.2 | 37 | 1 | 10.2 | 37 | 1 | 10.2 |
| 301–400 | 18 | 0 | 11.8 | 18 | 0 | 11.8 | 38 | 1 | 10.0 | 38 | 1 | 10.0 | 38 | 1 | 10.0 | 60 | 2 | 8.5 |
| 401–500 | 18 | 0 | 11.9 | 18 | 0 | 11.9 | 39 | 1 | 9.8 | 39 | 1 | 9.8 | 60 | 2 | 8.6 | 60 | 2 | 8.6 |
| 501–600 | 18 | 0 | 11.9 | 18 | 0 | 11.9 | 39 | 1 | 9.8 | 39 | 1 | 9.8 | 60 | 2 | 8.6 | 60 | 2 | 8.6 |
| 601–800 | 18 | 0 | 11.9 | 40 | 1 | 9.6 | 40 | 1 | 9.6 | 65 | 2 | 8.0 | 65 | 2 | 8.0 | 85 | 3 | 7.5 |
| 801–1000 | 18 | 0 | 12.0 | 40 | 1 | 9.6 | 40 | 1 | 9.6 | 65 | 2 | 8.1 | 65 | 2 | 8.1 | 90 | 3 | 7.4 |
| 1001–2000 | 18 | 0 | 12.0 | 41 | 1 | 9.4 | 65 | 2 | 8.2 | 65 | 2 | 8.2 | 95 | 3 | 7.0 | 120 | 4 | 6.5 |
| 2001–3000 | 18 | 0 | 12.0 | 41 | 1 | 9.4 | 65 | 2 | 8.2 | 95 | 3 | 7.0 | 120 | 4 | 6.5 | 180 | 6 | 5.8 |
| 3001–4000 | 18 | 0 | 12.0 | 42 | 1 | 9.3 | 65 | 2 | 8.2 | 95 | 3 | 7.0 | 155 | 5 | 6.0 | 210 | 7 | 5.5 |
| 4001–5000 | 18 | 0 | 12.0 | 42 | 1 | 9.3 | 70 | 2 | 7.5 | 125 | 4 | 6.4 | 155 | 5 | 6.0 | 245 | 8 | 5.3 |
| 5001–7000 | 18 | 0 | 12.0 | 42 | 1 | 9.3 | 95 | 3 | 7.0 | 125 | 4 | 6.4 | 185 | 6 | 5.6 | 280 | 9 | 5.1 |
| 7001–10,000 | 42 | 1 | 9.3 | 70 | 2 | 7.5 | 95 | 3 | 7.0 | 155 | 5 | 6.0 | 220 | 7 | 5.4 | 350 | 11 | 4.8 |
| 10,001–20,000 | 42 | 1 | 9.3 | 70 | 2 | 7.6 | 95 | 3 | 7.0 | 190 | 6 | 5.6 | 290 | 9 | 4.9 | 460 | 14 | 4.4 |
| 20,001–50,000 | 42 | 1 | 9.3 | 70 | 2 | 7.6 | 125 | 4 | 6.4 | 220 | 7 | 5.4 | 395 | 12 | 4.5 | 720 | 21 | 3.9 |
| 50,001–100,000 | 42 | 1 | 9.3 | 95 | 3 | 7.0 | 160 | 5 | 5.9 | 290 | 9 | 4.9 | 505 | 15 | 4.2 | 955 | 27 | 3.7 |

### TABLE SA-2.5
AVERAGE OUTGOING QUALITY LIMIT = 2.5%

| Process Average % | 0–.05 | | | .06–.50 | | | .51–1.00 | | | 1.01–1.50 | | | 1.51–2.00 | | | 2.01–2.50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–10 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 11–50 | 11 | 0 | 17.6 | 11 | 0 | 17.6 | 11 | 0 | 17.6 | 11 | 0 | 17.6 | 11 | 0 | 17.6 | 11 | 0 | 17.6 |
| 51–100 | 13 | 0 | 15.3 | 13 | 0 | 15.3 | 13 | 0 | 15.3 | 13 | 0 | 15.3 | 13 | 0 | 15.3 | 13 | 0 | 15.3 |
| 101–200 | 14 | 0 | 14.7 | 14 | 0 | 14.7 | 14 | 0 | 14.7 | 29 | 1 | 12.9 | 29 | 1 | 12.9 | 29 | 1 | 12.9 |
| 201–300 | 14 | 0 | 14.9 | 14 | 0 | 14.9 | 30 | 1 | 12.7 | 30 | 1 | 12.7 | 30 | 1 | 12.7 | 30 | 1 | 12.7 |
| 301–400 | 14 | 0 | 15.0 | 14 | 0 | 15.0 | 31 | 1 | 12.3 | 31 | 1 | 12.3 | 31 | 1 | 12.3 | 48 | 2 | 10.7 |
| 401–500 | 14 | 0 | 15.0 | 14 | 0 | 15.0 | 32 | 1 | 12.0 | 32 | 1 | 12.0 | 49 | 2 | 10.6 | 49 | 2 | 10.6 |
| 501–600 | 14 | 0 | 15.1 | 32 | 1 | 12.0 | 32 | 1 | 12.0 | 50 | 2 | 10.4 | 50 | 2 | 10.4 | 70 | 3 | 9.3 |
| 601–800 | 14 | 0 | 15.1 | 32 | 1 | 12.0 | 32 | 1 | 12.0 | 50 | 2 | 10.5 | 50 | 2 | 10.5 | 70 | 3 | 9.4 |
| 801–1000 | 15 | 0 | 14.2 | 33 | 1 | 11.7 | 33 | 1 | 11.7 | 50 | 2 | 10.6 | 70 | 3 | 9.4 | 90 | 4 | 8.5 |
| 1001–2000 | 15 | 0 | 14.2 | 33 | 1 | 11.7 | 55 | 2 | 9.3 | 75 | 3 | 8.8 | 95 | 4 | 8.0 | 120 | 5 | 7.6 |
| 2001–3000 | 15 | 0 | 14.2 | 33 | 1 | 11.8 | 55 | 2 | 9.4 | 75 | 3 | 8.8 | 120 | 5 | 7.6 | 145 | 6 | 7.2 |
| 3001–4000 | 15 | 0 | 14.3 | 33 | 1 | 11.8 | 55 | 2 | 9.5 | 100 | 4 | 7.9 | 125 | 5 | 7.4 | 195 | 8 | 6.6 |
| 4001–5000 | 15 | 0 | 14.3 | 33 | 1 | 11.8 | 75 | 3 | 8.9 | 100 | 4 | 7.9 | 150 | 6 | 7.0 | 225 | 9 | 6.3 |
| 5001–7000 | 33 | 1 | 11.8 | 55 | 2 | 9.7 | 75 | 3 | 8.9 | 125 | 5 | 7.4 | 175 | 7 | 6.7 | 250 | 10 | 6.1 |
| 7001–10,000 | 34 | 1 | 11.4 | 55 | 2 | 9.7 | 75 | 3 | 8.9 | 125 | 5 | 7.4 | 200 | 8 | 6.4 | 310 | 12 | 5.8 |
| 10,001–20,000 | 34 | 1 | 11.4 | 55 | 2 | 9.7 | 100 | 4 | 8.0 | 150 | 6 | 7.0 | 260 | 10 | 6.0 | 425 | 16 | 5.3 |
| 20,001–50,000 | 34 | 1 | 11.4 | 55 | 2 | 9.7 | 100 | 4 | 8.0 | 180 | 7 | 6.7 | 345 | 13 | 5.5 | 640 | 23 | 4.8 |
| 50,001–100,000 | 34 | 1 | 11.4 | 80 | 3 | 8.4 | 125 | 5 | 7.4 | 235 | 9 | 6.1 | 435 | 16 | 5.2 | 800 | 28 | 4.5 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
pt = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_c$) = 0.10.

## TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-3.0
AVERAGE OUTGOING QUALITY LIMIT = 3.0%

| Process Average % | 0–.06 | | | .07–.60 | | | .61–1.20 | | | 1.21–1.80 | | | 1.81–2.40 | | | 2.41–3.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–10 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 11–50 | 10 | 0 | 19.0 | 10 | 0 | 19.0 | 10 | 0 | 19.0 | 10 | 0 | 19.0 | 10 | 0 | 19.0 | 10 | 0 | 19.0 |
| 51–100 | 11 | 0 | 18.0 | 11 | 0 | 18.0 | 11 | 0 | 18.0 | 11 | 0 | 18.0 | 11 | 0 | 18.0 | 22 | 1 | 16.4 |
| 101–200 | 12 | 0 | 17.0 | 12 | 0 | 17.0 | 12 | 0 | 17.0 | 25 | 1 | 15.1 | 25 | 1 | 15.1 | 25 | 1 | 15.1 |
| 201–300 | 12 | 0 | 17.0 | 12 | 0 | 17.0 | 26 | 1 | 14.6 | 26 | 1 | 14.6 | 26 | 1 | 14.6 | 40 | 2 | 12.8 |
| 301–400 | 12 | 0 | 17.1 | 12 | 0 | 17.1 | 26 | 1 | 14.7 | 26 | 1 | 14.7 | 41 | 2 | 12.7 | 41 | 2 | 12.7 |
| 401–500 | 12 | 0 | 17.2 | 27 | 1 | 14.1 | 27 | 1 | 14.1 | 42 | 2 | 12.4 | 42 | 2 | 12.4 | 42 | 2 | 12.4 |
| 501–600 | 12 | 0 | 17.3 | 27 | 1 | 14.2 | 27 | 1 | 14.2 | 42 | 2 | 12.4 | 42 | 2 | 12.4 | 60 | 3 | 10.8 |
| 601–800 | 12 | 0 | 17.3 | 27 | 1 | 14.2 | 27 | 1 | 14.2 | 43 | 2 | 12.1 | 60 | 3 | 10.9 | 60 | 3 | 10.9 |
| 801–1000 | 12 | 0 | 17.4 | 27 | 1 | 14.2 | 44 | 2 | 11.8 | 44 | 2 | 11.8 | 60 | 3 | 11.0 | 80 | 4 | 9.8 |
| 1001–2000 | 12 | 0 | 17.5 | 28 | 1 | 13.8 | 45 | 2 | 11.7 | 65 | 3 | 10.2 | 80 | 4 | 9.8 | 100 | 5 | 9.1 |
| 2001–3000 | 12 | 0 | 17.5 | 28 | 1 | 13.8 | 45 | 2 | 11.7 | 65 | 3 | 10.2 | 100 | 5 | 9.1 | 140 | 7 | 8.2 |
| 3001–4000 | 12 | 0 | 17.5 | 28 | 1 | 13.8 | 65 | 3 | 10.3 | 85 | 4 | 9.5 | 125 | 6 | 8.4 | 165 | 8 | 7.8 |
| 4001–5000 | 28 | 1 | 13.8 | 28 | 1 | 13.8 | 65 | 3 | 10.3 | 85 | 4 | 9.5 | 125 | 6 | 8.4 | 210 | 10 | 7.4 |
| 5001–7000 | 28 | 1 | 13.8 | 45 | 2 | 11.8 | 65 | 3 | 10.3 | 105 | 5 | 8.8 | 145 | 7 | 8.1 | 235 | 11 | 7.1 |
| 7001–10,000 | 28 | 1 | 13.9 | 46 | 2 | 11.6 | 65 | 3 | 10.3 | 105 | 5 | 8.8 | 170 | 8 | 7.6 | 280 | 13 | 6.8 |
| 10,001–20,000 | 28 | 1 | 13.9 | 46 | 2 | 11.7 | 85 | 4 | 9.5 | 125 | 6 | 8.4 | 215 | 10 | 7.2 | 380 | 17 | 6.2 |
| 20,001–50,000 | 28 | 1 | 13.9 | 65 | 3 | 10.3 | 105 | 5 | 8.8 | 170 | 8 | 7.6 | 310 | 14 | 6.5 | 560 | 24 | 5.7 |
| 50,001–100,000 | 28 | 1 | 13.9 | 65 | 3 | 10.3 | 125 | 6 | 8.4 | 215 | 10 | 7.2 | 385 | 17 | 6.2 | 690 | 29 | 5.4 |

### TABLE SA-4.0
AVERAGE OUTGOING QUALITY LIMIT = 4.0%

| Process Average % | 0–.08 | | | .09–.80 | | | .81–1.60 | | | 1.61–2.40 | | | 2.41–3.20 | | | 3.21–4.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–10 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 11–50 | 8 | 0 | 23.0 | 8 | 0 | 23.0 | 8 | 0 | 23.0 | 8 | 0 | 23.0 | 8 | 0 | 23.0 | 8 | 0 | 23.0 |
| 51–100 | 8 | 0 | 24.0 | 8 | 0 | 24.0 | 8 | 0 | 24.0 | 8 | 0 | 24.0 | 17 | 1 | 21.5 | 17 | 1 | 21.5 |
| 101–200 | 9 | 0 | 22.0 | 9 | 0 | 22.0 | 19 | 1 | 20.0 | 19 | 1 | 20.0 | 19 | 1 | 20.0 | 19 | 1 | 20.0 |
| 201–300 | 9 | 0 | 22.5 | 9 | 0 | 22.5 | 20 | 1 | 19.0 | 20 | 1 | 19.0 | 31 | 2 | 16.8 | 31 | 2 | 16.8 |
| 301–400 | 9 | 0 | 22.5 | 20 | 1 | 19.1 | 20 | 1 | 19.1 | 32 | 2 | 16.2 | 32 | 2 | 16.2 | 43 | 3 | 15.2 |
| 401–500 | 9 | 0 | 22.5 | 20 | 1 | 19.1 | 20 | 1 | 19.1 | 32 | 2 | 16.3 | 32 | 2 | 16.3 | 44 | 3 | 14.9 |
| 501–600 | 9 | 0 | 22.5 | 20 | 1 | 19.2 | 20 | 1 | 19.2 | 32 | 2 | 16.3 | 45 | 3 | 14.6 | 60 | 4 | 12.9 |
| 601–800 | 9 | 0 | 22.5 | 20 | 1 | 19.2 | 33 | 2 | 15.9 | 33 | 2 | 15.9 | 46 | 3 | 14.3 | 60 | 4 | 13.0 |
| 801–1000 | 9 | 0 | 22.5 | 21 | 1 | 18.3 | 33 | 2 | 16.0 | 46 | 3 | 14.3 | 60 | 4 | 13.0 | 75 | 5 | 12.2 |
| 1001–2000 | 9 | 0 | 22.5 | 21 | 1 | 18.4 | 34 | 2 | 15.6 | 47 | 3 | 14.1 | 75 | 5 | 12.2 | 105 | 7 | 11.0 |
| 2001–3000 | 9 | 0 | 22.5 | 21 | 1 | 18.4 | 34 | 2 | 15.6 | 60 | 4 | 13.2 | 90 | 6 | 11.3 | 125 | 8 | 10.4 |
| 3001–4000 | 21 | 1 | 18.4 | 21 | 1 | 18.4 | 48 | 3 | 13.8 | 65 | 4 | 12.2 | 110 | 7 | 10.7 | 155 | 10 | 9.8 |
| 4001–5000 | 21 | 1 | 18.5 | 34 | 2 | 15.7 | 48 | 3 | 13.9 | 80 | 5 | 11.6 | 110 | 7 | 10.8 | 175 | 11 | 9.5 |
| 5001–7000 | 21 | 1 | 18.5 | 34 | 2 | 15.7 | 48 | 3 | 13.9 | 80 | 5 | 11.6 | 125 | 8 | 10.4 | 210 | 13 | 9.0 |
| 7001–10,000 | 21 | 1 | 18.5 | 34 | 2 | 15.7 | 65 | 4 | 12.3 | 95 | 6 | 11.1 | 145 | 9 | 9.8 | 245 | 15 | 8.6 |
| 10,001–20,000 | 21 | 1 | 18.5 | 34 | 2 | 15.7 | 65 | 4 | 12.3 | 110 | 7 | 10.8 | 195 | 12 | 9.0 | 340 | 20 | 7.9 |
| 20,001–50,000 | 21 | 1 | 18.5 | 49 | 3 | 13.6 | 80 | 5 | 11.6 | 145 | 9 | 9.8 | 250 | 15 | 8.5 | 460 | 26 | 7.4 |
| 50,001–100,000 | 21 | 1 | 18.5 | 49 | 3 | 13.6 | 95 | 6 | 11.1 | 165 | 10 | 9.6 | 310 | 18 | 8.0 | 540 | 30 | 7.1 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_C)$ = 0.10.

# TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE SA-5.0
AVERAGE OUTGOING QUALITY LIMIT = 5.0%

| Process Average % | 0–.10 | | | .11–1.00 | | | 1.01–2.00 | | | 2.01–3.00 | | | 3.01–4.00 | | | 4.01–5.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–5 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 6–50 | 6 | 0 | 30.5 | 6 | 0 | 30.5 | 6 | 0 | 30.5 | 6 | 0 | 30.5 | 6 | 0 | 30.5 | 6 | 0 | 30.5 |
| 51–100 | 7 | 0 | 27.0 | 7 | 0 | 27.0 | 7 | 0 | 27.0 | 14 | 1 | 26.5 | 14 | 1 | 26.5 | 14 | 1 | 26.5 |
| 101–200 | 7 | 0 | 27.5 | 7 | 0 | 27.5 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 24 | 2 | 21.5 |
| 201–300 | 7 | 0 | 27.5 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 25 | 2 | 21.0 | 25 | 2 | 21.0 |
| 301–400 | 7 | 0 | 27.5 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 26 | 2 | 20.0 | 26 | 2 | 20.0 | 35 | 3 | 18.8 |
| 401–500 | 7 | 0 | 27.5 | 16 | 1 | 24.0 | 16 | 1 | 24.0 | 26 | 2 | 20.0 | 36 | 3 | 18.3 | 46 | 4 | 17.0 |
| 501–600 | 7 | 0 | 28.0 | 16 | 1 | 24.0 | 26 | 2 | 20.0 | 26 | 2 | 20.0 | 37 | 3 | 17.9 | 47 | 4 | 16.6 |
| 601–800 | 7 | 0 | 28.0 | 16 | 1 | 24.0 | 27 | 2 | 19.4 | 37 | 3 | 17.9 | 48 | 4 | 16.3 | 60 | 5 | 15.2 |
| 801–1000 | 7 | 0 | 28.0 | 17 | 1 | 22.5 | 27 | 2 | 19.5 | 37 | 3 | 17.9 | 48 | 4 | 16.3 | 70 | 6 | 14.3 |
| 1001–2000 | 7 | 0 | 28.0 | 17 | 1 | 23.0 | 27 | 2 | 19.6 | 38 | 3 | 17.6 | 60 | 5 | 15.3 | 85 | 7 | 13.7 |
| 2001–3000 | 7 | 0 | 28.0 | 17 | 1 | 23.0 | 38 | 3 | 17.6 | 50 | 4 | 15.8 | 75 | 6 | 13.9 | 125 | 10 | 12.3 |
| 3001–4000 | 17 | 1 | 23.0 | 27 | 2 | 19.6 | 39 | 3 | 17.0 | 60 | 5 | 15.4 | 85 | 7 | 13.8 | 140 | 11 | 11.8 |
| 4001–5000 | 17 | 1 | 23.0 | 27 | 2 | 19.6 | 39 | 3 | 17.0 | 65 | 5 | 14.2 | 100 | 8 | 12.9 | 155 | 12 | 11.6 |
| 5001–7000 | 17 | 1 | 23.0 | 27 | 2 | 19.7 | 39 | 3 | 17.1 | 75 | 6 | 13.9 | 115 | 9 | 12.3 | 185 | 14 | 11.0 |
| 7001–10,000 | 17 | 1 | 23.0 | 27 | 2 | 19.7 | 50 | 4 | 15.9 | 75 | 6 | 14.0 | 130 | 10 | 12.0 | 225 | 17 | 10.4 |
| 10,001–20,000 | 17 | 1 | 23.0 | 27 | 2 | 19.7 | 50 | 4 | 15.9 | 90 | 7 | 13.1 | 170 | 13 | 11.0 | 305 | 22 | 9.6 |
| 20,001–50,000 | 17 | 1 | 23.0 | 39 | 3 | 17.1 | 65 | 5 | 14.3 | 115 | 9 | 12.3 | 215 | 16 | 10.4 | 400 | 28 | 9.0 |
| 50,001–100,000 | 17 | 1 | 23.0 | 39 | 3 | 17.1 | 75 | 6 | 14.0 | 145 | 11 | 11.6 | 275 | 20 | 9.8 | 450 | 31 | 8.8 |

### TABLE SA-7.0
AVERAGE OUTGOING QUALITY LIMIT = 7.0%

| Process Average % | 0–.14 | | | .15–1.40 | | | 1.41–2.80 | | | 2.81–4.20 | | | 4.21–5.60 | | | 5.61–7.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–5 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 6–50 | 5 | 0 | 35.5 | 5 | 0 | 35.5 | 5 | 0 | 35.5 | 5 | 0 | 35.5 | 5 | 0 | 35.5 | 5 | 0 | 35.5 |
| 51–100 | 5 | 0 | 36.0 | 5 | 0 | 36.0 | 5 | 0 | 36.0 | 11 | 1 | 28.5 | 11 | 1 | 28.5 | 11 | 1 | 28.5 |
| 101–200 | 5 | 0 | 36.5 | 5 | 0 | 36.5 | 11 | 1 | 30.5 | 11 | 1 | 30.5 | 18 | 2 | 26.5 | 18 | 2 | 26.5 |
| 201–300 | 5 | 0 | 36.5 | 12 | 1 | 28.5 | 12 | 1 | 28.5 | 18 | 2 | 26.5 | 18 | 2 | 26.5 | 25 | 3 | 26.0 |
| 301–400 | 5 | 0 | 37.0 | 12 | 1 | 28.5 | 12 | 1 | 28.5 | 19 | 2 | 25.5 | 26 | 3 | 25.0 | 33 | 4 | 23.5 |
| 401–500 | 5 | 0 | 37.0 | 12 | 1 | 28.5 | 19 | 2 | 25.5 | 19 | 2 | 25.5 | 26 | 3 | 25.0 | 34 | 4 | 23.0 |
| 501–600 | 5 | 0 | 37.0 | 12 | 1 | 28.5 | 19 | 2 | 25.5 | 27 | 3 | 24.5 | 34 | 4 | 23.0 | 42 | 5 | 21.5 |
| 601–800 | 5 | 0 | 37.0 | 12 | 1 | 29.0 | 19 | 2 | 25.5 | 27 | 3 | 24.5 | 35 | 4 | 22.5 | 50 | 6 | 20.5 |
| 801–1000 | 5 | 0 | 37.0 | 12 | 1 | 29.0 | 19 | 2 | 25.5 | 27 | 3 | 24.5 | 43 | 5 | 21.5 | 60 | 7 | 19.3 |
| 1001–2000 | 5 | 0 | 37.0 | 12 | 1 | 29.0 | 27 | 3 | 24.5 | 36 | 4 | 22.0 | 50 | 6 | 21.0 | 70 | 8 | 17.7 |
| 2001–3000 | 12 | 1 | 29.0 | 19 | 2 | 25.5 | 28 | 3 | 23.5 | 45 | 5 | 20.5 | 60 | 7 | 19.6 | 100 | 11 | 16.5 |
| 3001–4000 | 12 | 1 | 29.0 | 20 | 2 | 24.5 | 28 | 3 | 24.0 | 45 | 5 | 20.5 | 70 | 8 | 18.1 | 120 | 13 | 15.8 |
| 4001–5000 | 12 | 1 | 29.0 | 20 | 2 | 24.5 | 36 | 4 | 22.0 | 55 | 6 | 19.0 | 80 | 9 | 17.3 | 140 | 15 | 15.1 |
| 5001–7000 | 12 | 1 | 29.0 | 20 | 2 | 24.5 | 36 | 4 | 22.0 | 55 | 6 | 19.1 | 90 | 10 | 16.8 | 160 | 17 | 14.6 |
| 7001–10,000 | 12 | 1 | 29.0 | 20 | 2 | 24.5 | 36 | 4 | 22.0 | 65 | 7 | 18.4 | 110 | 12 | 15.9 | 195 | 20 | 13.9 |
| 10,001–20,000 | 12 | 1 | 29.0 | 28 | 3 | 24.0 | 45 | 5 | 20.5 | 75 | 8 | 17.8 | 135 | 14 | 15.2 | 240 | 24 | 13.2 |
| 20,001–50,000 | 12 | 1 | 29.0 | 28 | 3 | 24.0 | 55 | 6 | 19.2 | 95 | 10 | 16.6 | 175 | 18 | 14.1 | 310 | 30 | 12.4 |
| 50,001–100,000 | 12 | 1 | 29.0 | 28 | 3 | 24.0 | 55 | 6 | 19.2 | 115 | 12 | 15.8 | 210 | 21 | 13.4 | 355 | 34 | 12.1 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_C$) = 0.10.

## TABLE III CONT'D: SINGLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

TABLE SA-10.0

AVERAGE OUTGOING QUALITY LIMIT = 10.0%

| Process Average % | 0–.20 | | | .21–2.00 | | | 2.01–4.00 | | | 4.01–6.00 | | | 6.01–8.00 | | | 8.01–10.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lot Size | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% | n | c | pt% |
| 1–3 | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – | All | 0 | – |
| 4–50 | 3 | 0 | 52.5 | 3 | 0 | 52.5 | 3 | 0 | 52.5 | 3 | 0 | 52.5 | 3 | 0 | 52.5 | 7 | 1 | 43.5 |
| 51–100 | 4 | 0 | 43.0 | 4 | 0 | 43.0 | 8 | 1 | 40.0 | 8 | 1 | 40.0 | 8 | 1 | 40.0 | 12 | 2 | 37.5 |
| 101–200 | 4 | 0 | 43.5 | 8 | 1 | 40.0 | 8 | 1 | 40.0 | 13 | 2 | 35.5 | 13 | 2 | 35.5 | 18 | 3 | 33.0 |
| 201–300 | 4 | 0 | 43.5 | 8 | 1 | 40.5 | 8 | 1 | 40.5 | 13 | 2 | 35.5 | 18 | 3 | 33.0 | 23 | 4 | 32.0 |
| 301–400 | 4 | 0 | 43.5 | 8 | 1 | 40.5 | 13 | 2 | 35.5 | 13 | 2 | 35.5 | 24 | 4 | 30.0 | 29 | 5 | 30.0 |
| 401–500 | 4 | 0 | 43.5 | 8 | 1 | 40.5 | 13 | 2 | 36.0 | 19 | 3 | 31.5 | 24 | 4 | 30.0 | 30 | 5 | 29.5 |
| 501–600 | 4 | 0 | 43.5 | 8 | 1 | 40.5 | 13 | 2 | 36.0 | 19 | 3 | 31.5 | 24 | 4 | 30.5 | 36 | 6 | 28.5 |
| 601–800 | 4 | 0 | 43.5 | 8 | 1 | 40.5 | 13 | 2 | 36.0 | 19 | 3 | 31.5 | 31 | 5 | 29.5 | 42 | 7 | 27.5 |
| 801–1000 | 4 | 0 | 44.0 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 25 | 4 | 30.0 | 37 | 6 | 28.0 | 49 | 8 | 26.5 |
| 1001–2000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 19 | 3 | 32.0 | 31 | 5 | 30.0 | 44 | 7 | 26.5 | 65 | 10 | 23.5 |
| 2001–3000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 19 | 3 | 32.0 | 31 | 5 | 30.0 | 50 | 8 | 26.0 | 85 | 13 | 22.5 |
| 3001–4000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 25 | 4 | 30.0 | 38 | 6 | 27.5 | 65 | 10 | 24.0 | 100 | 15 | 21.5 |
| 4001–5000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 25 | 4 | 30.0 | 38 | 6 | 27.5 | 65 | 10 | 24.0 | 120 | 18 | 20.5 |
| 5001–7000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 25 | 4 | 30.0 | 44 | 7 | 27.0 | 80 | 12 | 22.5 | 135 | 20 | 19.8 |
| 7001–10,000 | 8 | 1 | 40.5 | 14 | 2 | 33.5 | 32 | 5 | 29.0 | 50 | 8 | 26.0 | 85 | 13 | 22.5 | 160 | 23 | 19.2 |
| 10,001–20,000 | 8 | 1 | 40.5 | 19 | 3 | 32.0 | 32 | 5 | 29.0 | 60 | 9 | 24.5 | 110 | 16 | 21.0 | 190 | 27 | 18.3 |
| 20,001–50,000 | 8 | 1 | 40.5 | 19 | 3 | 32.0 | 38 | 6 | 27.5 | 70 | 11 | 23.0 | 130 | 19 | 19.7 | 225 | 31 | 17.5 |
| 50,001–100,000 | 14 | 2 | 33.5 | 19 | 3 | 32.0 | 44 | 7 | 27.0 | 80 | 12 | 22.5 | 155 | 22 | 19.0 | 260 | 35 | 16.9 |

n = Size of Sample; entry of "All" indicates that each piece in lot is to be inspected.
c = Allowable Defect Number for Sample.
pt = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_C$) = 0.10.

# TABLE IV: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

## TABLE DA-0.1

### AVERAGE OUTGOING QUALITY LIMIT = 0.1%

| Process Average % / Lot Size | 0–.002 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % | .003–.020 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % | .021–.040 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % | .041–.060 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % | .061–.080 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % | .081–.100 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | $P_t$ % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–75 | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - |
| 76–95 | 75 | 0 | - | - | - | 1.5 | 75 | 0 | - | - | - | 1.5 | 75 | 0 | - | - | - | 1.5 | 75 | 0 | - | - | - | 1.5 | 75 | 0 | - | - | - | 1.5 | 75 | 0 | - | - | - | 1.5 |
| 96–130 | 95 | 0 | - | - | - | 1.4 | 95 | 0 | - | - | - | 1.4 | 95 | 0 | - | - | - | 1.4 | 95 | 0 | - | - | - | 1.4 | 95 | 0 | - | - | - | 1.4 | 95 | 0 | - | - | - | 1.4 |
| 131–200 | 130 | 0 | - | - | - | 1.2 | 130 | 0 | - | - | - | 1.2 | 130 | 0 | - | - | - | 1.2 | 130 | 0 | - | - | - | 1.2 | 130 | 0 | - | - | - | 1.2 | 130 | 0 | - | - | - | 1.2 |
| 201–300 | 165 | 0 | - | - | - | 1.1 | 165 | 0 | - | - | - | 1.1 | 165 | 0 | - | - | - | 1.1 | 165 | 0 | - | - | - | 1.1 | 165 | 0 | - | - | - | 1.1 | 165 | 0 | - | - | - | 1.1 |
| 301–350 | 190 | 0 | - | - | - | .96 | 190 | 0 | - | - | - | .96 | 190 | 0 | - | - | - | .96 | 190 | 0 | - | - | - | .96 | 190 | 0 | - | - | - | .96 | 190 | 0 | - | - | - | .96 |
| 351–400 | 225 | 0 | 95 | 320 | 1 | .86 | 225 | 0 | 95 | 320 | 1 | .86 | 225 | 0 | 95 | 320 | 1 | .86 | 225 | 0 | 95 | 320 | 1 | .86 | 225 | 0 | 95 | 320 | 1 | .86 | 225 | 0 | 95 | 320 | 1 | .86 |
| 401–500 | 250 | 0 | 120 | 370 | 1 | .80 | 250 | 0 | 120 | 370 | 1 | .80 | 250 | 0 | 120 | 370 | 1 | .80 | 250 | 0 | 120 | 370 | 1 | .80 | 250 | 0 | 120 | 370 | 1 | .80 | 250 | 0 | 120 | 370 | 1 | .80 |
| 501–600 | 275 | 0 | 130 | 405 | 1 | .77 | 275 | 0 | 130 | 405 | 1 | .77 | 275 | 0 | 130 | 405 | 1 | .77 | 275 | 0 | 130 | 405 | 1 | .77 | 275 | 0 | 130 | 405 | 1 | .77 | 275 | 0 | 130 | 405 | 1 | .77 |
| 601–800 | 310 | 0 | 155 | 465 | 1 | .71 | 310 | 0 | 155 | 465 | 1 | .71 | 310 | 0 | 155 | 465 | 1 | .71 | 310 | 0 | 155 | 465 | 1 | .71 | 310 | 0 | 155 | 465 | 1 | .71 | 310 | 0 | 155 | 465 | 1 | .71 |
| 801–1000 | 350 | 0 | 185 | 535 | 1 | .66 | 350 | 0 | 185 | 535 | 1 | .66 | 350 | 0 | 185 | 535 | 1 | .66 | 350 | 0 | 185 | 535 | 1 | .66 | 350 | 0 | 185 | 535 | 1 | .66 | 350 | 0 | 185 | 535 | 1 | .66 |
| 1001–2000 | 430 | 0 | 240 | 670 | 1 | .58 | 430 | 0 | 240 | 670 | 1 | .58 | 430 | 0 | 240 | 670 | 1 | .58 | 430 | 0 | 240 | 670 | 1 | .58 | 430 | 0 | 240 | 670 | 1 | .58 | 475 | 0 | 450 | 925 | 2 | .54 |
| 2001–3000 | 465 | 0 | 265 | 730 | 1 | .56 | 465 | 0 | 265 | 730 | 1 | .56 | 465 | 0 | 265 | 730 | 1 | .56 | 520 | 0 | 530 | 1050 | 2 | .56 | 520 | 0 | 530 | 1050 | 2 | .56 | 520 | 0 | 530 | 1050 | 2 | .50 |
| 3001–4000 | 495 | 0 | 285 | 780 | 1 | .54 | 495 | 0 | 285 | 780 | 1 | .54 | 540 | 0 | 570 | 1110 | 2 | .49 | 540 | 0 | 570 | 1110 | 2 | .49 | 540 | 0 | 570 | 1110 | 2 | .49 | 585 | 0 | 885 | 1470 | 3 | .45 |
| 4001–5000 | 505 | 0 | 295 | 800 | 1 | .53 | 505 | 0 | 295 | 800 | 1 | .53 | 555 | 0 | 615 | 1170 | 2 | .48 | 555 | 0 | 615 | 1170 | 2 | .48 | 605 | 0 | 935 | 1540 | 3 | .44 | 605 | 0 | 935 | 1540 | 3 | .44 |
| 5001–7000 | 520 | 0 | 320 | 840 | 1 | .52 | 520 | 0 | 320 | 840 | 1 | .52 | 590 | 0 | 660 | 1250 | 2 | .46 | 655 | 0 | 1045 | 1700 | 3 | .41 | 655 | 0 | 1045 | 1700 | 3 | .41 | 680 | 0 | 1360 | 2040 | 4 | .40 |
| 7001–10,000 | 540 | 0 | 335 | 875 | 1 | .51 | 625 | 0 | 715 | 1340 | 2 | .44 | 625 | 0 | 715 | 1340 | 2 | .44 | 700 | 0 | 1120 | 1820 | 3 | .39 | 700 | 0 | 1120 | 1820 | 3 | .39 | 1250 | 1 | 1780 | 3030 | 6 | .35 |
| 10,001–20,000 | 555 | 0 | 345 | 900 | 1 | .50 | 650 | 0 | 750 | 1400 | 2 | .43 | 720 | 0 | 1150 | 1870 | 3 | .38 | 740 | 0 | 1530 | 2270 | 4 | .37 | 1350 | 1 | 2020 | 3370 | 6 | .33 | 1400 | 1 | 2420 | 3820 | 7 | .32 |
| 20,001–50,000 | 660 | 0 | 760 | 1420 | 2 | .42 | 660 | 0 | 760 | 1420 | 2 | .42 | 770 | 0 | 1700 | 2470 | 4 | .36 | 1400 | 1 | 2170 | 3570 | 6 | .32 | 1450 | 1 | 3030 | 4480 | 8 | .31 | 2230 | 2 | 4650 | 6880 | 12 | .27 |
| 50,001–100,000 | 670 | 0 | 770 | 1440 | 2 | .42 | 740 | 0 | 1230 | 1970 | 3 | .38 | 805 | 0 | 1725 | 2530 | 4 | .35 | 1460 | 1 | 3060 | 4520 | 8 | .31 | 2330 | 2 | 4910 | 7240 | 12 | .26 | 3690 | 4 | 7580 | 11270 | 19 | .24 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.

$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.

$P_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_C$) = 0.10.

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

## TABLE DA-0.25

Average Outgoing Quality Limit = 0.25%

| Process Average % / Lot Size | 0-.005 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | .006-.050 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | .051-.100 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | .101-.150 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | .151-.200 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | .201-.250 Trial 1 $n_1$ | $c_1$ | Trial 2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-60 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 61-100 | 60 | 0 | — | — | — | 2.5 | 60 | 0 | — | — | — | 2.5 | 60 | 0 | — | — | — | 2.5 | 60 | 0 | — | — | — | 2.5 | 60 | 0 | — | — | — | 2.5 | 60 | 0 | — | — | — | 2.5 |
| 101-200 | 85 | 0 | — | — | — | 2.1 | 85 | 0 | — | — | — | 2.1 | 85 | 0 | — | — | — | 2.1 | 85 | 0 | — | — | — | 2.1 | 85 | 0 | — | — | — | 2.1 | 85 | 0 | — | — | — | 2.1 |
| 201-300 | 120 | 0 | 65 | 185 | 1 | 1.8 | 120 | 0 | 65 | 185 | 1 | 1.8 | 120 | 0 | 65 | 185 | 1 | 1.8 | 120 | 0 | 65 | 185 | 1 | 1.8 | 120 | 0 | 65 | 185 | 1 | 1.8 | 120 | 0 | 65 | 185 | 1 | 1.8 |
| 301-400 | 135 | 0 | 70 | 205 | 1 | 1.7 | 135 | 0 | 70 | 205 | 1 | 1.7 | 135 | 0 | 70 | 205 | 1 | 1.7 | 135 | 0 | 70 | 205 | 1 | 1.7 | 135 | 0 | 70 | 205 | 1 | 1.7 | 135 | 0 | 70 | 205 | 1 | 1.7 |
| 401-500 | 145 | 0 | 80 | 225 | 1 | 1.6 | 145 | 0 | 80 | 225 | 1 | 1.6 | 145 | 0 | 80 | 225 | 1 | 1.6 | 145 | 0 | 80 | 225 | 1 | 1.6 | 145 | 0 | 80 | 225 | 1 | 1.6 | 145 | 0 | 80 | 225 | 1 | 1.6 |
| 501-600 | 160 | 0 | 90 | 250 | 1 | 1.5 | 160 | 0 | 90 | 250 | 1 | 1.5 | 160 | 0 | 90 | 250 | 1 | 1.5 | 160 | 0 | 90 | 250 | 1 | 1.5 | 160 | 0 | 90 | 250 | 1 | 1.5 | 175 | 0 | 160 | 335 | 2 | 1.4 |
| 601-800 | 165 | 0 | 95 | 260 | 1 | 1.5 | 165 | 0 | 95 | 260 | 1 | 1.5 | 165 | 0 | 95 | 380 | 1 | 1.5 | 195 | 0 | 95 | 380 | 1 | 1.5 | 195 | 0 | 185 | 380 | 2 | 1.3 | 195 | 0 | 185 | 380 | 2 | 1.3 |
| 801-1000 | 180 | 0 | 105 | 285 | 1 | 1.4 | 180 | 0 | 105 | 285 | 1 | 1.4 | 180 | 0 | 105 | 285 | 1 | 1.4 | 200 | 0 | 195 | 395 | 2 | 1.3 | 200 | 0 | 195 | 395 | 2 | 1.3 | 200 | 0 | 195 | 395 | 2 | 1.3 |
| 1001-2000 | 205 | 0 | 120 | 325 | 1 | 1.3 | 205 | 0 | 120 | 325 | 1 | 1.3 | 220 | 0 | 245 | 465 | 2 | 1.2 | 220 | 0 | 245 | 465 | 2 | 1.2 | 220 | 0 | 245 | 465 | 2 | 1.2 | 240 | 0 | 375 | 615 | 3 | 1.1 |
| 2001-3000 | 210 | 0 | 125 | 335 | 1 | 1.3 | 210 | 0 | 125 | 335 | 1 | 1.3 | 235 | 0 | 275 | 510 | 2 | 1.1 | 260 | 0 | 435 | 695 | 3 | 1.0 | 260 | 0 | 435 | 695 | 3 | 1.0 | 280 | 0 | 570 | 850 | 4 | .96 |
| 3001-4000 | 210 | 0 | 130 | 340 | 1 | 1.3 | 210 | 0 | 130 | 340 | 1 | 1.3 | 240 | 0 | 280 | 520 | 2 | 1.1 | 270 | 0 | 440 | 710 | 3 | 1.0 | 290 | 0 | 600 | 890 | 4 | .94 | 290 | 0 | 600 | 890 | 4 | .94 |
| 4001-5000 | 215 | 0 | 130 | 345 | 1 | 1.3 | 245 | 0 | 280 | 525 | 2 | 1.3 | 275 | 0 | 445 | 720 | 3 | 1.0 | 275 | 0 | 445 | 720 | 3 | 1.0 | 300 | 1 | 615 | 915 | 4 | .92 | 520 | 1 | 750 | 1270 | 6 | .85 |
| 5001-7000 | 215 | 0 | 135 | 350 | 1 | 1.3 | 250 | 0 | 285 | 535 | 2 | 1.3 | 290 | 0 | 475 | 765 | 3 | .95 | 315 | 0 | 660 | 975 | 4 | .88 | 545 | 1 | 795 | 1340 | 6 | .82 | 555 | 1 | 965 | 1520 | 7 | .80 |
| 7001-10,000 | 255 | 0 | 290 | 545 | 2 | 1.1 | 255 | 0 | 290 | 545 | 2 | 1.1 | 295 | 0 | 490 | 785 | 3 | .94 | 325 | 0 | 705 | 1030 | 4 | .84 | 585 | 1 | 1045 | 1630 | 7 | .76 | 620 | 1 | 1420 | 2040 | 9 | .72 |
| 10,001-20,000 | 260 | 0 | 295 | 555 | 2 | 1.1 | 260 | 0 | 295 | 555 | 2 | 1.1 | 330 | 0 | 730 | 1060 | 4 | .83 | 590 | 1 | 910 | 1500 | 6 | .76 | 660 | 1 | 1530 | 2190 | 9 | .68 | 1220 | 3 | 2000 | 3220 | 13 | .61 |
| 20,001-50,000 | 265 | 0 | 300 | 565 | 2 | 1.0 | 305 | 0 | 505 | 810 | 3 | .91 | 335 | 0 | 735 | 1070 | 4 | .83 | 645 | 1 | 1355 | 2000 | 8 | .70 | 990 | 2 | 2340 | 3330 | 13 | .61 | 1850 | 5 | 3500 | 5350 | 21 | .55 |
| 50,001-100,000 | 270 | 0 | 305 | 575 | 2 | 1.0 | 310 | 0 | 510 | 820 | 3 | .91 | 350 | 0 | 930 | 1280 | 5 | .80 | 665 | 1 | 1615 | 2280 | 9 | .68 | 1340 | 3 | 2910 | 4250 | 16 | .56 | 2930 | 8 | 6090 | 9020 | 33 | .48 |

## TABLE DA-0.5

### Average Outgoing Quality Limit = 0.5%

| Process Average % / Lot Size | 0-.010 | | | | | | .011-.10 | | | | | | .11-.20 | | | | | | .21-.30 | | | | | | .31-.40 | | | | | | .41-.50 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% |
| 1-30 | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – |
| 31-50 | 30 | 0 | – | – | – | 5.0 | 30 | 0 | – | – | – | 5.0 | 30 | 0 | – | – | – | 5.0 | 30 | 0 | – | – | – | 5.0 | 30 | 0 | – | – | – | 5.0 | 30 | 0 | – | – | – | 5.0 |
| 51-75 | 40 | 0 | – | – | – | 4.6 | 40 | 0 | – | – | – | 4.6 | 40 | 0 | – | – | – | 4.6 | 40 | 0 | – | – | – | 4.6 | 40 | 0 | – | – | – | 4.6 | 40 | 0 | – | – | – | 4.6 |
| 76-100 | 47 | 0 | 23 | 70 | 1 | 4.4 | 47 | 0 | 23 | 70 | 1 | 4.4 | 47 | 0 | 23 | 70 | 1 | 4.4 | 47 | 0 | 23 | 70 | 1 | 4.4 | 47 | 0 | 23 | 70 | 1 | 4.4 | 47 | 0 | 23 | 70 | 1 | 4.4 |
| 101-150 | 60 | 0 | 30 | 90 | 1 | 3.8 | 60 | 0 | 30 | 90 | 1 | 3.8 | 60 | 0 | 30 | 90 | 1 | 3.8 | 60 | 0 | 30 | 90 | 1 | 3.8 | 60 | 0 | 30 | 90 | 1 | 3.8 | 60 | 0 | 30 | 90 | 1 | 3.8 |
| 151-200 | 70 | 0 | 35 | 105 | 1 | 3.3 | 70 | 0 | 35 | 105 | 1 | 3.3 | 70 | 0 | 35 | 105 | 1 | 3.3 | 70 | 0 | 35 | 105 | 1 | 3.3 | 70 | 0 | 35 | 105 | 1 | 3.3 | 70 | 0 | 35 | 105 | 1 | 3.3 |
| 201-300 | 80 | 0 | 45 | 125 | 1 | 3.0 | 80 | 0 | 45 | 125 | 1 | 3.0 | 80 | 0 | 45 | 125 | 1 | 3.0 | 80 | 0 | 45 | 125 | 1 | 3.0 | 80 | 0 | 45 | 125 | 1 | 3.0 | 80 | 0 | 45 | 125 | 1 | 3.0 |
| 301-400 | 85 | 0 | 50 | 135 | 1 | 2.9 | 85 | 0 | 50 | 135 | 1 | 2.9 | 85 | 0 | 50 | 135 | 1 | 2.9 | 85 | 0 | 50 | 135 | 1 | 3.0 | 95 | 0 | 115 | 210 | 2 | 2.7 | 95 | 0 | 90 | 185 | 2 | 2.7 |
| 401-500 | 90 | 0 | 55 | 145 | 1 | 2.8 | 90 | 0 | 55 | 145 | 1 | 2.8 | 90 | 0 | 55 | 145 | 1 | 2.8 | 100 | 0 | 100 | 200 | 2 | 2.6 | 100 | 0 | 125 | 225 | 2 | 2.6 | 100 | 0 | 100 | 200 | 2 | 2.6 |
| 501-600 | 95 | 0 | 55 | 150 | 1 | 2.8 | 95 | 0 | 55 | 150 | 1 | 2.8 | 95 | 0 | 55 | 150 | 1 | 2.8 | 105 | 0 | 105 | 210 | 2 | 2.5 | 105 | 0 | 105 | 210 | 2 | 2.5 | 105 | 0 | 105 | 210 | 2 | 2.5 |
| 601-800 | 100 | 0 | 55 | 155 | 1 | 2.7 | 100 | 0 | 55 | 155 | 1 | 2.7 | 110 | 0 | 115 | 225 | 2 | 2.4 | 110 | 0 | 115 | 225 | 2 | 2.4 | 110 | 0 | 115 | 225 | 2 | 2.4 | 120 | 0 | 180 | 300 | 3 | 2.2 |
| 801-1000 | 100 | 0 | 60 | 160 | 1 | 2.7 | 100 | 0 | 60 | 160 | 1 | 2.7 | 115 | 0 | 125 | 240 | 2 | 2.3 | 115 | 0 | 125 | 240 | 2 | 2.3 | 125 | 0 | 185 | 310 | 3 | 2.2 | 125 | 0 | 185 | 310 | 3 | 2.2 |
| 1001-2000 | 105 | 0 | 60 | 165 | 1 | 2.6 | 125 | 0 | 135 | 260 | 2 | 2.2 | 125 | 0 | 135 | 260 | 2 | 2.2 | 135 | 0 | 220 | 355 | 3 | 2.2 | 135 | 0 | 220 | 355 | 3 | 2.0 | 145 | 1 | 295 | 440 | 4 | 1.9 |
| 2001-3000 | 110 | 0 | 60 | 170 | 1 | 2.6 | 130 | 0 | 145 | 275 | 2 | 2.1 | 145 | 0 | 235 | 380 | 3 | 1.9 | 145 | 0 | 235 | 380 | 3 | 1.9 | 150 | 0 | 320 | 470 | 4 | 1.8 | 275 | 1 | 475 | 750 | 7 | 1.6 |
| 3001-4000 | 110 | 0 | 65 | 175 | 1 | 2.5 | 130 | 0 | 155 | 285 | 2 | 2.1 | 145 | 0 | 240 | 385 | 3 | 1.9 | 155 | 0 | 325 | 480 | 4 | 1.8 | 280 | 1 | 415 | 695 | 6 | 1.6 | 295 | 1 | 600 | 895 | 8 | 1.5 |
| 4001-5000 | 135 | 0 | 150 | 285 | 2 | 2.1 | 135 | 0 | 150 | 285 | 2 | 2.1 | 155 | 0 | 235 | 390 | 3 | 1.9 | 165 | 0 | 345 | 510 | 4 | 1.7 | 300 | 1 | 525 | 825 | 7 | 1.5 | 430 | 2 | 700 | 1130 | 10 | 1.4 |
| 5001-7000 | 135 | 0 | 155 | 290 | 2 | 2.1 | 135 | 0 | 155 | 290 | 2 | 2.1 | 155 | 0 | 245 | 400 | 3 | 1.8 | 175 | 0 | 455 | 630 | 5 | 1.6 | 310 | 1 | 670 | 980 | 8 | 1.4 | 460 | 2 | 860 | 1320 | 11 | 1.3 |
| 7001-10,000 | 135 | 0 | 160 | 295 | 2 | 2.1 | 135 | 0 | 160 | 295 | 2 | 2.1 | 175 | 0 | 375 | 550 | 4 | 1.6 | 300 | 1 | 460 | 760 | 6 | 1.5 | 465 | 2 | 785 | 1250 | 10 | 1.3 | 620 | 3 | 1120 | 1740 | 14 | 1.2 |
| 10,001-20,000 | 140 | 0 | 160 | 300 | 2 | 2.0 | 155 | 0 | 250 | 405 | 3 | 1.8 | 185 | 0 | 500 | 685 | 5 | 1.5 | 320 | 1 | 680 | 1000 | 8 | 1.4 | 495 | 2 | 1175 | 1670 | 13 | 1.2 | 740 | 4 | 1420 | 2160 | 18 | 1.2 |
| 20,001-50,000 | 140 | 0 | 165 | 305 | 2 | 2.0 | 155 | 0 | 255 | 410 | 3 | 1.8 | 185 | 0 | 505 | 690 | 5 | 1.5 | 350 | 1 | 930 | 1280 | 10 | 1.3 | 680 | 3 | 1490 | 2170 | 16 | 1.1 | 925 | 5 | 2085 | 3010 | 24 | 1.1 |
| 50,001-100,000 | 140 | 0 | 170 | 310 | 2 | 2.0 | 155 | 1 | 260 | 415 | 3 | 1.8 | 325 | 1 | 495 | 820 | 6 | 1.4 | 505 | 2 | 1075 | 1580 | 12 | 1.2 | 680 | 3 | 1810 | 2490 | 19 | 1.1 | 1550 | 9 | 3410 | 4960 | 38 | .99 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.

$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.

$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_c)$ = 0.10

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

## TABLE DA-0.75

### AVERAGE OUTGOING QUALITY LIMIT = 0.75%

| Lot Size | 0-.015 | | | | | | .016-.15 | | | | | | .16-.30 | | | | | | .31-.45 | | | | | | .46-.60 | | | | | | .61-.75 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Tr1 $n_1$ | $c_1$ | Tr2 $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt % |
| 1-25 | All 25 | 0 | — | — | — | — | All 25 | 0 | — | — | — | — | All 25 | 0 | — | — | — | — | All 25 | 0 | — | — | — | — | All 25 | 0 | — | — | — | — | All 25 | 0 | — | — | — | — |
| 26-50 | | 0 | — | — | — | 6.4 | | 0 | — | — | — | 6.4 | | 0 | — | — | — | 6.4 | | 0 | — | — | — | 6.4 | | 0 | — | — | — | 6.4 | | 0 | — | — | — | 6.4 |
| 51-75 | 35 | 0 | 15 | 50 | 1 | 6.0 | 35 | 0 | 15 | 50 | 1 | 6.0 | 35 | 0 | 15 | 50 | 1 | 6.0 | 35 | 0 | 15 | 50 | 1 | 6.0 | 35 | 0 | 15 | 50 | 1 | 6.0 | 35 | 0 | 15 | 50 | 1 | 6.0 |
| 76-100 | 39 | 0 | 21 | 60 | 1 | 5.6 | 39 | 0 | 21 | 60 | 1 | 5.6 | 39 | 0 | 21 | 60 | 1 | 5.6 | 39 | 0 | 21 | 60 | 1 | 5.6 | 39 | 0 | 21 | 60 | 1 | 5.6 | 39 | 0 | 21 | 60 | 1 | 5.6 |
| 101-200 | 55 | 0 | 30 | 85 | 1 | 4.5 | 55 | 0 | 30 | 85 | 1 | 4.5 | 55 | 0 | 30 | 85 | 1 | 4.5 | 55 | 0 | 30 | 85 | 1 | 4.5 | 55 | 0 | 30 | 85 | 1 | 4.5 | 55 | 0 | 30 | 85 | 1 | 4.5 |
| 201-300 | 60 | 0 | 30 | 90 | 1 | 4.3 | 60 | 0 | 30 | 90 | 1 | 4.3 | 60 | 0 | 30 | 90 | 1 | 4.3 | 60 | 0 | 30 | 90 | 1 | 4.3 | 60 | 0 | 30 | 90 | 1 | 4.3 | 60 | 0 | 30 | 90 | 1 | 4.3 |
| 301-400 | 60 | 0 | 35 | 95 | 1 | 4.2 | 60 | 0 | 35 | 95 | 1 | 4.2 | 60 | 0 | 35 | 95 | 1 | 4.2 | 70 | 0 | 70 | 140 | 2 | 3.8 | 70 | 0 | 70 | 140 | 2 | 3.8 | 70 | 0 | 70 | 140 | 2 | 3.8 |
| 401-500 | 65 | 0 | 35 | 100 | 1 | 4.1 | 65 | 0 | 35 | 100 | 1 | 4.1 | 70 | 0 | 75 | 145 | 2 | 3.7 | 70 | 0 | 75 | 145 | 2 | 3.7 | 70 | 0 | 75 | 145 | 2 | 3.7 | 70 | 0 | 75 | 145 | 2 | 3.7 |
| 501-600 | 65 | 0 | 40 | 105 | 1 | 4.0 | 65 | 0 | 40 | 105 | 1 | 4.0 | 75 | 0 | 80 | 155 | 2 | 3.6 | 75 | 0 | 80 | 155 | 2 | 3.6 | 75 | 0 | 80 | 155 | 2 | 3.6 | 80 | 0 | 120 | 200 | 3 | 3.3 |
| 601-800 | 70 | 0 | 40 | 110 | 1 | 3.9 | 70 | 0 | 40 | 110 | 1 | 3.9 | 75 | 0 | 85 | 160 | 2 | 3.5 | 75 | 0 | 85 | 160 | 2 | 3.5 | 85 | 0 | 130 | 215 | 3 | 3.2 | 85 | 0 | 130 | 215 | 3 | 3.2 |
| 801-1000 | 70 | 0 | 40 | 110 | 1 | 3.9 | 70 | 0 | 40 | 110 | 1 | 3.9 | 80 | 0 | 90 | 170 | 2 | 3.4 | 85 | 0 | 140 | 225 | 3 | 3.1 | 85 | 0 | 140 | 225 | 3 | 3.1 | 95 | 0 | 185 | 280 | 4 | 2.9 |
| 1001-2000 | 75 | 0 | 40 | 115 | 1 | 3.8 | 85 | 0 | 90 | 175 | 2 | 3.8 | 95 | 0 | 155 | 250 | 3 | 2.9 | 95 | 0 | 155 | 250 | 3 | 2.9 | 100 | 0 | 215 | 315 | 4 | 2.7 | 175 | 1 | 265 | 440 | 6 | 2.5 |
| 2001-3000 | 75 | 0 | 40 | 115 | 1 | 3.8 | 85 | 0 | 100 | 185 | 2 | 3.8 | 100 | 0 | 160 | 260 | 3 | 2.9 | 105 | 0 | 230 | 335 | 4 | 2.6 | 185 | 1 | 280 | 465 | 6 | 2.4 | 205 | 1 | 405 | 610 | 8 | 2.4 |
| 3001-4000 | 90 | 0 | 105 | 195 | 2 | 3.1 | 90 | 0 | 105 | 195 | 2 | 3.1 | 100 | 0 | 160 | 260 | 3 | 2.8 | 110 | 0 | 290 | 400 | 5 | 2.5 | 195 | 1 | 345 | 540 | 7 | 2.3 | 285 | 2 | 475 | 760 | 10 | 2.1 |
| 4001-5000 | 90 | 0 | 105 | 195 | 2 | 3.1 | 90 | 0 | 105 | 195 | 2 | 3.1 | 105 | 0 | 235 | 340 | 4 | 2.6 | 195 | 1 | 300 | 495 | 6 | 2.3 | 210 | 1 | 415 | 625 | 8 | 2.2 | 300 | 2 | 560 | 860 | 11 | 2.0 |
| 5001-7000 | 90 | 0 | 105 | 195 | 2 | 3.1 | 90 | 0 | 105 | 195 | 2 | 3.1 | 110 | 0 | 245 | 355 | 4 | 2.5 | 200 | 1 | 375 | 575 | 7 | 2.2 | 300 | 2 | 510 | 810 | 10 | 2.0 | 390 | 3 | 710 | 1100 | 14 | 1.9 |
| 7001-10,000 | 90 | 0 | 110 | 200 | 2 | 3.0 | 100 | 0 | 165 | 265 | 3 | 3.0 | 110 | 0 | 245 | 355 | 4 | 2.4 | 205 | 1 | 375 | 580 | 7 | 2.2 | 320 | 2 | 665 | 985 | 12 | 1.9 | 415 | 3 | 955 | 1370 | 17 | 1.8 |
| 10,001-20,000 | 90 | 0 | 110 | 200 | 2 | 3.0 | 100 | 0 | 165 | 265 | 3 | 2.8 | 120 | 0 | 325 | 445 | 5 | 2.3 | 215 | 1 | 455 | 670 | 8 | 2.1 | 335 | 2 | 855 | 1190 | 14 | 1.8 | 600 | 5 | 1200 | 1800 | 22 | 1.7 |
| 20,001-50,000 | 90 | 0 | 110 | 200 | 2 | 3.0 | 105 | 0 | 165 | 270 | 3 | 2.7 | 130 | 0 | 335 | 465 | 5 | 2.2 | 225 | 1 | 605 | 830 | 10 | 2.0 | 440 | 3 | 1030 | 1470 | 17 | 1.7 | 800 | 7 | 1640 | 2440 | 29 | 1.6 |
| 50,001-100,000,000 | 95 | 0 | 110 | 205 | 2 | 3.0 | 110 | 0 | 250 | 360 | 4 | 2.5 | 215 | 1 | 395 | 610 | 7 | 2.1 | 335 | 2 | 725 | 1060 | 12 | 1.8 | 555 | 4 | 1305 | 1860 | 21 | 1.6 | 1025 | 9 | 2405 | 3430 | 40 | 1.5 |

## TABLE DA-1

### Average Outgoing Quality Limit = 1.0%

| Process Average % / Lot Size | 0–.02 | | | | | | .03–.20 | | | | | | .21–.40 | | | | | | .41–.60 | | | | | | .61–.80 | | | | | | .81–1.00 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% |
| 1–25 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 26–50 | 22 | 0 | — | — | — | 7.7 | 22 | 0 | — | — | — | 7.7 | 22 | 0 | — | — | — | 7.7 | 22 | 0 | — | — | — | 7.7 | 22 | 0 | — | — | — | 7.7 | 22 | 0 | — | — | — | 7.7 |
| 51–100 | 33 | 0 | 17 | 50 | 1 | 6.9 | 33 | 0 | 17 | 50 | 1 | 6.9 | 33 | 0 | 17 | 50 | 1 | 6.9 | 33 | 0 | 17 | 50 | 1 | 6.9 | 33 | 0 | 17 | 50 | 1 | 6.9 | 33 | 0 | 17 | 50 | 1 | 6.9 |
| 101–200 | 43 | 0 | 22 | 65 | 1 | 5.8 | 43 | 0 | 22 | 65 | 1 | 5.8 | 43 | 0 | 22 | 65 | 1 | 5.8 | 43 | 0 | 22 | 65 | 1 | 5.8 | 43 | 0 | 22 | 65 | 1 | 5.8 | 47 | 0 | 43 | 90 | 2 | 5.4 |
| 201–300 | 47 | 0 | 28 | 75 | 1 | 5.5 | 47 | 0 | 28 | 75 | 1 | 5.5 | 47 | 0 | 28 | 75 | 1 | 5.5 | 55 | 0 | 50 | 105 | 2 | 4.9 | 55 | 0 | 50 | 105 | 2 | 4.9 | 55 | 0 | 50 | 105 | 2 | 4.9 |
| 301–400 | 49 | 0 | 31 | 80 | 1 | 5.4 | 49 | 0 | 31 | 80 | 1 | 5.4 | 55 | 0 | 60 | 115 | 2 | 4.8 | 55 | 0 | 60 | 115 | 2 | 4.8 | 55 | 0 | 60 | 115 | 2 | 4.8 | 60 | 0 | 80 | 140 | 3 | 4.5 |
| 401–500 | 50 | 0 | 30 | 80 | 1 | 5.4 | 50 | 0 | 30 | 80 | 1 | 5.4 | 55 | 0 | 65 | 120 | 2 | 4.7 | 55 | 0 | 65 | 120 | 2 | 4.7 | 60 | 0 | 95 | 155 | 3 | 4.3 | 60 | 0 | 95 | 155 | 3 | 4.3 |
| 501–600 | 50 | 0 | 30 | 80 | 1 | 5.4 | 50 | 0 | 30 | 80 | 1 | 5.4 | 60 | 0 | 65 | 125 | 2 | 4.6 | 60 | 0 | 65 | 125 | 2 | 4.6 | 65 | 0 | 100 | 165 | 3 | 4.2 | 65 | 0 | 100 | 165 | 3 | 4.2 |
| 601–800 | 50 | 0 | 35 | 85 | 1 | 5.3 | 60 | 0 | 70 | 130 | 2 | 4.5 | 60 | 0 | 70 | 130 | 2 | 4.5 | 65 | 0 | 105 | 170 | 3 | 4.1 | 65 | 0 | 105 | 170 | 3 | 4.1 | 70 | 0 | 140 | 210 | 4 | 3.9 |
| 801–1000 | 55 | 0 | 30 | 85 | 1 | 5.2 | 60 | 0 | 75 | 135 | 2 | 4.4 | 60 | 0 | 75 | 135 | 2 | 4.4 | 65 | 0 | 110 | 175 | 3 | 4.0 | 70 | 0 | 150 | 220 | 4 | 3.8 | 125 | 1 | 180 | 305 | 6 | 3.5 |
| 1001–2000 | 55 | 0 | 35 | 90 | 1 | 5.1 | 65 | 0 | 75 | 140 | 2 | 4.3 | 75 | 0 | 120 | 195 | 3 | 3.8 | 80 | 0 | 165 | 245 | 4 | 3.7 | 135 | 1 | 200 | 335 | 6 | 3.3 | 140 | 1 | 245 | 385 | 7 | 3.2 |
| 2001–3000 | 65 | 0 | 80 | 145 | 2 | 4.2 | 65 | 0 | 80 | 145 | 2 | 4.2 | 75 | 0 | 125 | 200 | 3 | 3.7 | 80 | 0 | 170 | 250 | 4 | 3.6 | 150 | 1 | 265 | 415 | 7 | 3.0 | 215 | 2 | 355 | 570 | 10 | 2.8 |
| 3001–4000 | 70 | 0 | 80 | 150 | 2 | 4.1 | 70 | 0 | 80 | 150 | 2 | 4.1 | 80 | 0 | 175 | 255 | 4 | 3.5 | 85 | 0 | 220 | 305 | 5 | 3.3 | 160 | 1 | 330 | 490 | 8 | 2.8 | 225 | 2 | 455 | 680 | 12 | 2.7 |
| 4001–5000 | 70 | 0 | 80 | 150 | 2 | 4.1 | 70 | 0 | 80 | 150 | 2 | 4.1 | 80 | 0 | 180 | 260 | 4 | 3.4 | 145 | 1 | 225 | 370 | 6 | 3.1 | 225 | 2 | 375 | 600 | 10 | 2.7 | 240 | 2 | 595 | 835 | 14 | 2.5 |
| 5001–7000 | 70 | 0 | 80 | 150 | 2 | 4.1 | 75 | 0 | 125 | 200 | 3 | 3.7 | 80 | 0 | 180 | 260 | 4 | 3.4 | 155 | 1 | 285 | 440 | 7 | 2.9 | 235 | 2 | 440 | 675 | 11 | 2.6 | 310 | 3 | 665 | 975 | 16 | 2.4 |
| 7001–10,000 | 70 | 0 | 80 | 150 | 2 | 4.1 | 80 | 0 | 125 | 205 | 3 | 3.6 | 85 | 0 | 180 | 265 | 4 | 3.3 | 165 | 1 | 355 | 520 | 8 | 2.7 | 250 | 2 | 585 | 835 | 13 | 2.4 | 385 | 4 | 785 | 1170 | 19 | 2.3 |
| 10,001–20,000 | 70 | 0 | 80 | 150 | 2 | 4.1 | 80 | 0 | 130 | 210 | 3 | 3.6 | 90 | 0 | 230 | 320 | 5 | 3.2 | 175 | 1 | 415 | 590 | 9 | 2.6 | 325 | 3 | 655 | 980 | 15 | 2.3 | 520 | 6 | 980 | 1500 | 24 | 2.2 |
| 20,001–50,000 | 75 | 0 | 80 | 155 | 2 | 4.0 | 80 | 0 | 135 | 215 | 3 | 3.6 | 95 | 0 | 300 | 395 | 5 | 2.9 | 250 | 1 | 490 | 740 | 11 | 2.4 | 340 | 3 | 910 | 1250 | 19 | 2.2 | 610 | 7 | 1410 | 2020 | 32 | 2.1 |
| 50,001–100,000 | 75 | 0 | 80 | 155 | 2 | 4.0 | 85 | 0 | 180 | 265 | 4 | 3.3 | 170 | 1 | 380 | 550 | 8 | 2.6 | 275 | 2 | 700 | 975 | 14 | 2.2 | 420 | 4 | 1050 | 1470 | 22 | 2.1 | 770 | 9 | 1850 | 2620 | 41 | 2.0 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.

$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.

$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_C$) = 0.10.

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

### TABLE DA-1.5

Average Outgoing Quality Limit = 1.5%

| Lot Size | 0–.03 | | | | | | .04–.30 | | | | | | .31–.60 | | | | | | .61–.90 | | | | | | .91–1.20 | | | | | | 1.21–1.50 | | | | | |
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t$% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–15 | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - | All | 0 | - | - | - | - |
| 16–50 | 16 | 0 | - | - | - | 11.6 | 16 | 0 | - | - | - | 11.6 | 16 | 0 | - | - | - | 11.6 | 16 | 0 | - | - | - | 11.6 | 16 | 0 | - | - | - | 11.6 | 16 | 0 | - | - | - | 11.6 |
| 51–75 | 23 | 0 | 11 | 34 | 1 | 10.5 | 23 | 0 | 11 | 34 | 1 | 10.5 | 23 | 0 | 11 | 34 | 1 | 10.5 | 23 | 0 | 11 | 34 | 1 | 10.5 | 23 | 0 | 11 | 34 | 1 | 10.5 | 23 | 0 | 11 | 34 | 1 | 10.5 |
| 76–100 | 26 | 0 | 14 | 40 | 1 | 9.4 | 26 | 0 | 14 | 40 | 1 | 9.4 | 26 | 0 | 14 | 40 | 1 | 9.4 | 26 | 0 | 14 | 40 | 1 | 9.4 | 26 | 0 | 14 | 40 | 1 | 9.4 | 26 | 0 | 14 | 40 | 1 | 9.4 |
| 101–200 | 31 | 0 | 18 | 49 | 1 | 8.4 | 31 | 0 | 18 | 49 | 1 | 8.4 | 31 | 0 | 18 | 49 | 1 | 8.4 | 35 | 0 | 35 | 70 | 2 | 7.5 | 35 | 0 | 35 | 70 | 2 | 7.5 | 35 | 0 | 35 | 70 | 2 | 7.5 |
| 201–300 | 33 | 0 | 22 | 55 | 1 | 8.0 | 33 | 0 | 22 | 55 | 1 | 8.0 | 38 | 0 | 37 | 75 | 2 | 7.0 | 38 | 0 | 37 | 75 | 2 | 7.0 | 38 | 0 | 37 | 75 | 2 | 7.0 | 40 | 0 | 60 | 100 | 3 | 6.6 |
| 301–400 | 34 | 0 | 21 | 55 | 1 | 7.9 | 34 | 0 | 21 | 55 | 1 | 7.9 | 39 | 0 | 41 | 80 | 2 | 6.9 | 39 | 0 | 41 | 80 | 2 | 6.9 | 42 | 0 | 63 | 105 | 3 | 6.3 | 42 | 0 | 63 | 105 | 3 | 6.3 |
| 401–500 | 35 | 0 | 20 | 55 | 1 | 7.8 | 35 | 0 | 20 | 55 | 1 | 7.8 | 39 | 0 | 46 | 85 | 2 | 6.9 | 44 | 0 | 71 | 115 | 3 | 6.1 | 44 | 0 | 71 | 115 | 3 | 6.1 | 46 | 0 | 94 | 140 | 4 | 5.8 |
| 501–600 | 35 | 0 | 20 | 55 | 1 | 7.8 | 40 | 0 | 45 | 85 | 2 | 6.8 | 40 | 0 | 45 | 85 | 2 | 6.8 | 44 | 0 | 71 | 115 | 3 | 6.1 | 44 | 0 | 71 | 115 | 3 | 6.1 | 47 | 0 | 98 | 145 | 4 | 5.7 |
| 601–800 | 35 | 0 | 20 | 55 | 1 | 7.8 | 41 | 0 | 49 | 90 | 2 | 6.7 | 46 | 0 | 74 | 120 | 3 | 6.0 | 46 | 0 | 74 | 120 | 3 | 6.0 | 49 | 0 | 101 | 150 | 4 | 5.6 | 85 | 1 | 125 | 210 | 6 | 5.0 |
| 801–1000 | 36 | 0 | 19 | 55 | 1 | 7.8 | 42 | 0 | 48 | 90 | 2 | 6.5 | 47 | 0 | 78 | 125 | 3 | 5.9 | 47 | 0 | 78 | 125 | 3 | 5.9 | 50 | 0 | 105 | 155 | 4 | 5.5 | 90 | 1 | 125 | 215 | 6 | 4.9 |
| 1001–2000 | 44 | 0 | 51 | 95 | 2 | 6.3 | 44 | 0 | 51 | 95 | 2 | 6.3 | 49 | 0 | 81 | 130 | 3 | 5.7 | 55 | 0 | 105 | 160 | 4 | 5.4 | 95 | 1 | 175 | 270 | 7 | 4.6 | 100 | 1 | 230 | 330 | 9 | 4.4 |
| 2001–3000 | 45 | 0 | 50 | 95 | 2 | 6.2 | 45 | 0 | 50 | 95 | 2 | 6.2 | 55 | 0 | 110 | 165 | 4 | 5.3 | 100 | 1 | 145 | 245 | 6 | 4.6 | 110 | 1 | 255 | 365 | 9 | 4.1 | 155 | 2 | 345 | 500 | 13 | 3.9 |
| 3001–4000 | 45 | 0 | 50 | 95 | 2 | 6.2 | 50 | 0 | 85 | 135 | 3 | 5.5 | 55 | 0 | 115 | 170 | 4 | 5.2 | 105 | 1 | 190 | 295 | 7 | 4.3 | 160 | 2 | 300 | 460 | 11 | 3.8 | 205 | 3 | 405 | 610 | 15 | 3.6 |
| 4001–5000 | 45 | 0 | 50 | 95 | 2 | 6.2 | 50 | 0 | 85 | 135 | 3 | 5.5 | 55 | 0 | 120 | 175 | 4 | 5.1 | 105 | 1 | 190 | 295 | 7 | 4.3 | 165 | 2 | 340 | 505 | 12 | 3.7 | 250 | 4 | 480 | 730 | 18 | 3.5 |
| 5001–7000 | 46 | 0 | 54 | 100 | 2 | 6.1 | 50 | 0 | 90 | 140 | 3 | 5.4 | 60 | 0 | 155 | 215 | 5 | 4.7 | 110 | 1 | 225 | 335 | 8 | 4.2 | 165 | 2 | 375 | 540 | 13 | 3.7 | 310 | 5 | 610 | 920 | 22 | 3.3 |
| 7001–10,000 | 46 | 0 | 54 | 100 | 2 | 6.1 | 50 | 0 | 90 | 140 | 3 | 5.4 | 60 | 0 | 160 | 220 | 5 | 4.6 | 115 | 1 | 280 | 395 | 9 | 3.9 | 170 | 2 | 420 | 590 | 14 | 3.6 | 360 | 6 | 660 | 1020 | 24 | 3.2 |
| 10,001–20,000 | 46 | 0 | 54 | 100 | 2 | 6.1 | 50 | 0 | 90 | 140 | 3 | 5.4 | 60 | 0 | 165 | 225 | 5 | 4.5 | 120 | 1 | 315 | 435 | 10 | 3.8 | 210 | 3 | 420 | 630 | 15 | 3.6 | 415 | 7 | 835 | 1250 | 29 | 3.1 |
| 20,001–50,000 | 47 | 0 | 53 | 100 | 2 | 6.1 | 55 | 0 | 125 | 180 | 4 | 5.0 | 65 | 0 | 195 | 260 | 6 | 4.4 | 165 | 2 | 350 | 515 | 12 | 3.7 | 225 | 3 | 640 | 865 | 20 | 3.3 | 510 | 9 | 1130 | 1640 | 38 | 3.0 |
| 50,001–100,000 | 47 | 0 | 53 | 100 | 2 | 6.1 | 55 | 0 | 130 | 185 | 4 | 4.9 | 115 | 1 | 235 | 350 | 8 | 4.0 | 175 | 2 | 440 | 615 | 14 | 3.5 | 275 | 4 | 725 | 1000 | 23 | 3.2 | 570 | 10 | 1400 | 1970 | 45 | 2.9 |

# TABLE DA-2
## Average Outgoing Quality Limit = 2.0%

| Process Average % / Lot Size | 0-.04 | | | | | | .05-.40 | | | | | | .41-.80 | | | | | | .81-1.20 | | | | | | 1.21-1.60 | | | | | | 1.61-2.00 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ |
| 1-15 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 16-50 | 14 | 0 | — | — | — | 13.6 | 14 | 0 | — | — | — | 13.6 | 14 | 0 | — | — | — | 13.6 | 14 | 0 | — | — | — | 13.6 | 14 | 0 | — | — | — | 13.6 | 14 | 0 | — | — | — | 13.6 |
| 51-100 | 21 | 0 | 12 | 33 | 1 | 11.7 | 21 | 0 | 12 | 33 | 1 | 11.7 | 21 | 0 | 12 | 33 | 1 | 11.7 | 21 | 0 | 12 | 33 | 1 | 11.7 | 21 | 0 | 12 | 33 | 1 | 11.7 | 23 | 0 | 23 | 46 | 2 | 10.9 |
| 101-200 | 24 | 0 | 13 | 37 | 1 | 11.0 | 24 | 0 | 13 | 37 | 1 | 11.0 | 24 | 0 | 13 | 37 | 1 | 11.0 | 27 | 0 | 28 | 55 | 2 | 9.6 | 27 | 0 | 28 | 55 | 2 | 9.6 | 27 | 0 | 28 | 55 | 2 | 9.6 |
| 201-300 | 26 | 0 | 15 | 41 | 1 | 10.4 | 26 | 0 | 15 | 41 | 1 | 10.4 | 29 | 0 | 31 | 60 | 2 | 9.1 | 29 | 0 | 31 | 60 | 2 | 9.1 | 32 | 0 | 48 | 80 | 3 | 8.4 | 32 | 0 | 48 | 80 | 3 | 8.4 |
| 301-400 | 26 | 0 | 16 | 42 | 1 | 10.3 | 26 | 0 | 16 | 42 | 1 | 10.3 | 30 | 0 | 35 | 65 | 2 | 9.0 | 33 | 0 | 52 | 85 | 3 | 8.2 | 33 | 0 | 52 | 85 | 3 | 8.2 | 36 | 0 | 69 | 105 | 4 | 7.6 |
| 401-500 | 27 | 0 | 16 | 43 | 1 | 10.3 | 30 | 0 | 35 | 65 | 2 | 9.0 | 30 | 0 | 35 | 65 | 2 | 9.0 | 34 | 0 | 56 | 90 | 3 | 7.9 | 36 | 1 | 74 | 110 | 4 | 7.5 | 60 | 1 | 90 | 150 | 6 | 7.0 |
| 501-600 | 27 | 0 | 16 | 43 | 1 | 10.3 | 31 | 0 | 34 | 65 | 2 | 8.9 | 35 | 0 | 55 | 90 | 3 | 7.9 | 35 | 0 | 55 | 90 | 3 | 7.9 | 37 | 0 | 78 | 115 | 4 | 7.4 | 65 | 1 | 95 | 160 | 6 | 6.8 |
| 601-800 | 27 | 0 | 17 | 44 | 1 | 10.2 | 31 | 0 | 39 | 70 | 2 | 8.8 | 35 | 0 | 60 | 95 | 3 | 7.7 | 38 | 0 | 82 | 120 | 4 | 7.3 | 38 | 0 | 82 | 120 | 4 | 7.3 | 70 | 1 | 120 | 190 | 7 | 6.4 |
| 801-1000 | 27 | 0 | 17 | 44 | 1 | 10.2 | 32 | 0 | 38 | 70 | 2 | 8.7 | 36 | 0 | 59 | 95 | 3 | 7.6 | 38 | 0 | 87 | 125 | 4 | 7.2 | 70 | 1 | 100 | 170 | 6 | 6.5 | 70 | 1 | 145 | 215 | 8 | 6.2 |
| 1001-2000 | 33 | 0 | 37 | 70 | 2 | 8.5 | 33 | 0 | 37 | 70 | 2 | 8.5 | 37 | 0 | 63 | 100 | 3 | 7.5 | 43 | 0 | 112 | 155 | 5 | 6.5 | 80 | 1 | 160 | 240 | 8 | 5.8 | 110 | 2 | 205 | 315 | 11 | 5.5 |
| 2001-3000 | 34 | 0 | 41 | 75 | 2 | 8.2 | 34 | 0 | 41 | 75 | 2 | 8.2 | 41 | 0 | 84 | 125 | 4 | 7.0 | 75 | 1 | 115 | 190 | 6 | 6.1 | 115 | 2 | 195 | 310 | 10 | 5.3 | 160 | 3 | 310 | 470 | 15 | 4.7 |
| 3001-4000 | 34 | 0 | 41 | 75 | 2 | 8.2 | 38 | 0 | 62 | 100 | 3 | 7.3 | 41 | 0 | 89 | 130 | 4 | 6.9 | 80 | 1 | 140 | 220 | 7 | 5.8 | 120 | 2 | 255 | 375 | 12 | 5.0 | 235 | 5 | 415 | 650 | 20 | 4.3 |
| 4001-5000 | 34 | 0 | 41 | 75 | 2 | 8.2 | 38 | 0 | 62 | 100 | 3 | 7.3 | 42 | 0 | 88 | 130 | 4 | 6.9 | 80 | 1 | 175 | 255 | 8 | 5.5 | 125 | 2 | 285 | 410 | 13 | 4.9 | 275 | 6 | 475 | 750 | 23 | 4.2 |
| 5001-7000 | 35 | 0 | 40 | 75 | 2 | 8.1 | 38 | 0 | 62 | 100 | 3 | 7.3 | 44 | 0 | 116 | 160 | 5 | 6.4 | 85 | 1 | 205 | 290 | 9 | 5.3 | 125 | 2 | 320 | 445 | 14 | 4.8 | 280 | 6 | 575 | 855 | 26 | 4.1 |
| 7001-10,000 | 35 | 0 | 40 | 75 | 2 | 8.1 | 38 | 0 | 62 | 100 | 3 | 7.3 | 45 | 0 | 115 | 160 | 5 | 6.3 | 85 | 1 | 210 | 295 | 9 | 5.2 | 165 | 3 | 335 | 500 | 15 | 4.5 | 320 | 7 | 645 | 965 | 29 | 4.0 |
| 10,001-20,000 | 35 | 0 | 40 | 75 | 2 | 8.1 | 39 | 0 | 66 | 105 | 3 | 7.2 | 45 | 0 | 115 | 160 | 5 | 6.3 | 90 | 1 | 260 | 350 | 11 | 5.1 | 170 | 3 | 425 | 595 | 18 | 4.4 | 395 | 9 | 835 | 1230 | 37 | 3.9 |
| 20,001-50,000 | 35 | 0 | 40 | 75 | 2 | 8.1 | 43 | 0 | 92 | 135 | 4 | 6.6 | 47 | 0 | 148 | 195 | 6 | 6.0 | 130 | 1 | 300 | 430 | 13 | 4.7 | 205 | 4 | 515 | 720 | 22 | 4.3 | 480 | 11 | 1090 | 1570 | 46 | 3.7 |
| 50,001-100,000 | 35 | 0 | 45 | 80 | 2 | 8.0 | 43 | 0 | 92 | 135 | 4 | 6.6 | 85 | 1 | 185 | 270 | 8 | 5.2 | 135 | 2 | 345 | 480 | 14 | 4.5 | 250 | 5 | 615 | 865 | 26 | 4.1 | 580 | 13 | 1460 | 2040 | 58 | 3.5 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.
$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_c$) = 0.10.

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

## TABLE DA-2.5

Average Outgoing Quality Limit = 2.5%

| Lot Size | 0–05 | | | | | | .06–50 | | | | | | .51–1.00 | | | | | | 1.01–1.50 | | | | | | 1.51–2.00 | | | | | | 2.01–2.50 | | | | | |
| | Trial 1 | | Trial 2 | | | Pt % | Trial 1 | | Trial 2 | | | Pt % | Trial 1 | | Trial 2 | | | Pt % | Trial 1 | | Trial 2 | | | Pt % | Trial 1 | | Trial 2 | | | Pt % | Trial 1 | | Trial 2 | | | Pt % |
| | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–10 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 11–50 | 11 | 0 | — | — | — | 17.6 | 11 | 0 | — | — | — | 17.6 | 11 | 0 | — | — | — | 17.6 | 11 | 0 | — | — | — | 17.6 | 11 | 0 | — | — | — | 17.6 | 11 | 0 | — | — | — | 17.6 |
| 51–100 | 18 | 0 | 10 | 28 | 1 | 14.1 | 18 | 0 | 10 | 28 | 1 | 14.1 | 18 | 0 | 10 | 28 | 1 | 14.1 | 18 | 0 | 10 | 28 | 1 | 14.1 | 20 | 0 | 20 | 40 | 2 | 13.0 | 20 | 0 | 20 | 40 | 2 | 13.0 |
| 101–200 | 20 | 0 | 11 | 31 | 1 | 13.7 | 23 | 0 | 11 | 31 | 2 | 13.7 | 23 | 0 | 25 | 48 | 2 | 11.7 | 23 | 0 | 25 | 48 | 2 | 11.7 | 23 | 0 | 25 | 48 | 2 | 11.7 | 25 | 0 | 35 | 60 | 3 | 10.8 |
| 201–300 | 21 | 0 | 13 | 34 | 1 | 13.0 | 21 | 0 | 13 | 34 | 1 | 13.0 | 24 | 0 | 25 | 49 | 2 | 11.4 | 26 | 0 | 44 | 70 | 3 | 10.3 | 26 | 0 | 44 | 70 | 3 | 10.3 | 28 | 0 | 57 | 85 | 4 | 9.5 |
| 301–400 | 21 | 0 | 14 | 35 | 1 | 12.8 | 24 | 0 | 26 | 50 | 2 | 11.3 | 24 | 0 | 26 | 50 | 2 | 11.3 | 27 | 0 | 43 | 70 | 3 | 9.9 | 29 | 1 | 61 | 90 | 4 | 9.3 | 49 | 1 | 71 | 120 | 6 | 8.8 |
| 401–500 | 22 | 0 | 13 | 35 | 2 | 12.7 | 25 | 0 | 25 | 50 | 2 | 11.1 | 28 | 0 | 47 | 75 | 3 | 9.8 | 28 | 0 | 47 | 75 | 3 | 9.8 | 30 | 1 | 60 | 90 | 4 | 9.2 | 50 | 1 | 80 | 130 | 6 | 8.4 |
| 501–600 | 22 | 0 | 14 | 36 | 1 | 12.5 | 25 | 0 | 30 | 55 | 2 | 10.9 | 28 | 0 | 47 | 75 | 3 | 9.8 | 30 | 0 | 65 | 95 | 4 | 9.1 | 30 | 1 | 65 | 95 | 4 | 9.1 | 55 | 1 | 95 | 150 | 7 | 8.0 |
| 601–800 | 22 | 0 | 14 | 36 | 1 | 12.5 | 26 | 0 | 29 | 55 | 2 | 10.8 | 28 | 0 | 47 | 75 | 3 | 9.8 | 31 | 0 | 69 | 100 | 4 | 8.8 | 55 | 1 | 85 | 140 | 6 | 8.0 | 60 | 1 | 115 | 175 | 8 | 7.6 |
| 801–1000 | 26 | 0 | 29 | 55 | 2 | 10.8 | 26 | 0 | 29 | 55 | 2 | 10.8 | 29 | 0 | 46 | 75 | 3 | 9.8 | 32 | 0 | 68 | 100 | 4 | 8.7 | 60 | 1 | 100 | 160 | 7 | 7.8 | 85 | 2 | 120 | 205 | 9 | 7.2 |
| 1001–2000 | 27 | 0 | 33 | 60 | 2 | 10.5 | 27 | 0 | 33 | 60 | 2 | 10.5 | 33 | 0 | 72 | 105 | 4 | 8.3 | 60 | 1 | 90 | 150 | 6 | 7.6 | 65 | 1 | 150 | 215 | 9 | 7.0 | 95 | 2 | 210 | 305 | 13 | 6.5 |
| 2001–3000 | 27 | 0 | 33 | 60 | 2 | 10.5 | 30 | 0 | 50 | 80 | 3 | 9.3 | 33 | 0 | 72 | 105 | 4 | 8.3 | 65 | 1 | 115 | 180 | 7 | 7.2 | 90 | 2 | 170 | 260 | 11 | 6.8 | 125 | 3 | 265 | 390 | 16 | 6.0 |
| 3001–4000 | 27 | 0 | 33 | 60 | 2 | 10.5 | 31 | 0 | 49 | 80 | 3 | 9.1 | 33 | 0 | 77 | 110 | 4 | 8.2 | 65 | 1 | 140 | 205 | 8 | 6.8 | 95 | 2 | 205 | 300 | 12 | 6.4 | 185 | 5 | 350 | 535 | 21 | 5.5 |
| 4001–5000 | 27 | 0 | 33 | 60 | 2 | 10.5 | 31 | 0 | 49 | 80 | 3 | 9.1 | 36 | 0 | 94 | 130 | 5 | 7.6 | 70 | 1 | 160 | 230 | 9 | 6.5 | 100 | 2 | 255 | 355 | 14 | 6.0 | 220 | 6 | 410 | 630 | 24 | 5.2 |
| 5001–7000 | 28 | 0 | 32 | 60 | 2 | 10.3 | 31 | 0 | 49 | 80 | 3 | 9.1 | 36 | 0 | 94 | 130 | 5 | 7.7 | 75 | 1 | 190 | 265 | 10 | 6.2 | 130 | 3 | 265 | 395 | 15 | 5.7 | 255 | 7 | 495 | 750 | 28 | 5.0 |
| 7001–10,000 | 28 | 0 | 32 | 60 | 2 | 10.3 | 31 | 0 | 49 | 80 | 3 | 9.2 | 36 | 0 | 94 | 130 | 5 | 7.7 | 100 | 2 | 195 | 295 | 11 | 6.0 | 140 | 3 | 355 | 495 | 18 | 5.3 | 325 | 9 | 665 | 990 | 36 | 4.7 |
| 10,001–20,000 | 28 | 0 | 32 | 60 | 2 | 10.3 | 31 | 0 | 49 | 80 | 3 | 9.2 | 36 | 0 | 94 | 130 | 5 | 7.8 | 105 | 2 | 215 | 320 | 12 | 5.9 | 170 | 4 | 380 | 550 | 20 | 5.2 | 360 | 10 | 830 | 1190 | 43 | 4.6 |
| 20,001–50,000 | 28 | 0 | 32 | 60 | 2 | 10.3 | 33 | 0 | 87 | 120 | 3 | 7.7 | 70 | 0 | 145 | 215 | 5 | 6.6 | 105 | 2 | 245 | 350 | 13 | 5.8 | 205 | 5 | 485 | 690 | 25 | 5.0 | 415 | 11 | 1145 | 1560 | 54 | 4.3 |
| 50,001–100,000 | 28 | 0 | 37 | 65 | 2 | 10.2 | 33 | 0 | 92 | 125 | 4 | 7.6 | 70 | 1 | 170 | 240 | 9 | 6.4 | 110 | 2 | 295 | 405 | 15 | 5.6 | 245 | 6 | 610 | 855 | 30 | 4.7 | 510 | 14 | 1370 | 1880 | 65 | 4.2 |

## TABLE DA-3
### Average Outgoing Quality Limit = 3.0%

| Lot Size | \ 0-.06 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | \ .07-.60 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | \ .61-1.20 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | \ 1.21-1.80 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | \ 1.81-2.40 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ | \ 2.41-3.00 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | $p_t\%$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-10 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 11-50 | 10 | 0 | — | — | — | 19.0 | 10 | 0 | — | — | — | 19.0 | 10 | 0 | — | — | — | 19.0 | 10 | 0 | — | — | — | 19.0 | 10 | 0 | — | — | — | 19.0 | 10 | 0 | — | — | — | 19.0 |
| 51-100 | 16 | 0 | 9 | 25 | 1 | 16.4 | 16 | 0 | 9 | 25 | 1 | 16.4 | 16 | 0 | 9 | 25 | 1 | 16.4 | 17 | 0 | 17 | 34 | 2 | 15.8 | 17 | 0 | 17 | 34 | 2 | 15.8 | 17 | 0 | 17 | 34 | 2 | 15.8 |
| 101-200 | 17 | 0 | 9 | 26 | 1 | 16.0 | 17 | 0 | 9 | 26 | 1 | 16.0 | 17 | 0 | 9 | 26 | 1 | 16.0 | 20 | 0 | 21 | 41 | 3 | 13.7 | 22 | 0 | 33 | 55 | 3 | 12.4 | 22 | 0 | 33 | 55 | 3 | 12.4 |
| 201-300 | 18 | 0 | 10 | 28 | 1 | 15.5 | 18 | 0 | 10 | 28 | 1 | 15.5 | 21 | 0 | 23 | 44 | 2 | 13.3 | 23 | 0 | 37 | 60 | 3 | 12.0 | 23 | 0 | 37 | 60 | 3 | 12.0 | 24 | 0 | 51 | 75 | 4 | 11.1 |
| 301-400 | 18 | 0 | 11 | 29 | 1 | 15.2 | 21 | 0 | 24 | 45 | 2 | 13.2 | 23 | 0 | 37 | 60 | 3 | 12.0 | 23 | 0 | 37 | 60 | 3 | 12.0 | 25 | 0 | 55 | 80 | 4 | 10.8 | 42 | 1 | 63 | 105 | 6 | 10.4 |
| 401-500 | 18 | 0 | 11 | 29 | 1 | 15.2 | 21 | 0 | 25 | 46 | 2 | 13.0 | 24 | 0 | 36 | 60 | 3 | 11.7 | 24 | 0 | 36 | 60 | 3 | 11.7 | 25 | 0 | 55 | 80 | 4 | 10.8 | 46 | 1 | 79 | 125 | 7 | 9.7 |
| 501-600 | 18 | 0 | 12 | 30 | 1 | 15.0 | 21 | 0 | 25 | 46 | 2 | 13.0 | 24 | 0 | 41 | 65 | 3 | 11.5 | 26 | 0 | 54 | 80 | 4 | 10.7 | 46 | 1 | 69 | 115 | 6 | 9.7 | 48 | 1 | 97 | 145 | 8 | 9.2 |
| 601-800 | 21 | 0 | 25 | 46 | 2 | 13.0 | 21 | 0 | 25 | 46 | 2 | 13.0 | 24 | 0 | 41 | 65 | 3 | 11.5 | 26 | 0 | 54 | 80 | 4 | 10.7 | 49 | 1 | 81 | 130 | 6 | 9.4 | 50 | 1 | 115 | 165 | 9 | 8.9 |
| 801-1000 | 21 | 0 | 26 | 47 | 2 | 12.8 | 21 | 0 | 26 | 47 | 2 | 12.8 | 25 | 0 | 40 | 65 | 3 | 11.4 | 27 | 0 | 58 | 85 | 4 | 10.3 | 49 | 1 | 86 | 135 | 7 | 9.2 | 70 | 2 | 120 | 190 | 10 | 8.4 |
| 1001-2000 | 22 | 0 | 26 | 48 | 2 | 12.6 | 22 | 0 | 26 | 48 | 3 | 12.6 | 27 | 0 | 58 | 85 | 4 | 10.3 | 49 | 1 | 76 | 125 | 6 | 9.1 | 50 | 1 | 150 | 200 | 10 | 8.0 | 100 | 3 | 180 | 280 | 14 | 7.5 |
| 2001-3000 | 22 | 0 | 26 | 48 | 2 | 12.6 | 25 | 0 | 40 | 65 | 3 | 11.4 | 28 | 0 | 62 | 90 | 4 | 11.4 | 50 | 1 | 95 | 145 | 7 | 8.7 | 75 | 2 | 165 | 245 | 12 | 7.6 | 130 | 4 | 260 | 390 | 19 | 6.9 |
| 3001-4000 | 23 | 0 | 26 | 49 | 2 | 12.4 | 25 | 0 | 45 | 70 | 3 | 11.0 | 29 | 0 | 76 | 105 | 5 | 9.6 | 55 | 1 | 110 | 165 | 8 | 8.5 | 105 | 3 | 200 | 305 | 14 | 7.0 | 155 | 5 | 330 | 485 | 23 | 6.5 |
| 4001-5000 | 23 | 0 | 26 | 49 | 2 | 12.4 | 26 | 0 | 44 | 70 | 3 | 11.0 | 30 | 0 | 75 | 105 | 5 | 9.5 | 60 | 1 | 135 | 195 | 9 | 7.8 | 110 | 3 | 225 | 335 | 15 | 6.7 | 215 | 7 | 390 | 605 | 27 | 6.0 |
| 5001-7000 | 23 | 0 | 27 | 50 | 2 | 12.2 | 26 | 0 | 44 | 70 | 3 | 11.0 | 30 | 0 | 80 | 110 | 5 | 9.4 | 60 | 1 | 165 | 225 | 10 | 7.3 | 110 | 3 | 250 | 360 | 16 | 6.6 | 270 | 9 | 505 | 775 | 34 | 5.7 |
| 7001-10,000 | 23 | 0 | 27 | 50 | 2 | 12.2 | 26 | 0 | 43 | 70 | 3 | 11.0 | 30 | 0 | 80 | 110 | 5 | 9.4 | 85 | 2 | 160 | 245 | 11 | 7.2 | 115 | 3 | 290 | 405 | 18 | 6.5 | 285 | 9 | 680 | 965 | 41 | 5.4 |
| 10,001-20,000 | 23 | 0 | 27 | 50 | 2 | 12.2 | 27 | 0 | 43 | 70 | 3 | 11.0 | 31 | 0 | 94 | 125 | 6 | 9.2 | 85 | 2 | 180 | 265 | 12 | 7.2 | 140 | 4 | 315 | 455 | 20 | 6.3 | 315 | 10 | 805 | 1120 | 47 | 5.3 |
| 20,001-50,000 | 23 | 0 | 27 | 50 | 2 | 12.2 | 28 | 0 | 67 | 95 | 4 | 9.7 | 55 | 1 | 120 | 175 | 8 | 8.0 | 85 | 2 | 205 | 290 | 13 | 7.0 | 170 | 5 | 420 | 590 | 26 | 6.0 | 390 | 13 | 940 | 1330 | 56 | 5.2 |
| 50,001-100,000 | 23 | 0 | 27 | 50 | 2 | 12.2 | 31 | 0 | 84 | 115 | 5 | 9.0 | 60 | 1 | 140 | 200 | 9 | 7.6 | 90 | 2 | 245 | 335 | 15 | 6.8 | 200 | 6 | 505 | 705 | 30 | 5.7 | 445 | 15 | 1105 | 1550 | 65 | 5.1 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.
$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk $(P_c)$ = 0.10.

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

## TABLE DA-4

Average Outgoing Quality Limit = 4.0%

| Process Average % | 0-.08 | | | | | | .09-.80 | | | | | | .81-1.60 | | | | | | 1.61-2.40 | | | | | | 2.41-3.20 | | | | | | 3.21-4.00 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Trial 1 | | Trial 2 | | | $p_t\%$ | Trial 1 | | Trial 2 | | | $p_t\%$ | Trial 1 | | Trial 2 | | | $p_t\%$ | Trial 1 | | Trial 2 | | | $p_t\%$ | Trial 1 | | Trial 2 | | | $p_t\%$ | Trial 1 | | Trial 2 | | | $p_t\%$ |
| Lot Size | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | | $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | |
| 1-10 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 11-50 | 8 | 0 | — | — | — | 23.0 | 8 | 0 | — | — | — | 23.0 | 8 | 0 | — | — | — | 23.0 | 8 | 0 | — | — | — | 23.0 | 8 | 0 | — | — | — | 23.0 | 8 | 0 | — | — | — | 23.0 |
| 51-100 | 12 | 0 | 7 | 19 | 1 | 22.0 | 12 | 0 | 7 | 19 | 1 | 22.0 | 12 | 0 | 7 | 19 | 1 | 22.0 | 13 | 0 | 14 | 27 | 2 | 20.5 | 13 | 0 | 14 | 27 | 2 | 20.5 | 13 | 0 | 14 | 27 | 2 | 20.5 |
| 101-200 | 13 | 0 | 8 | 21 | 1 | 21.0 | 13 | 0 | 8 | 21 | 1 | 21.0 | 15 | 0 | 17 | 32 | 2 | 18.0 | 16 | 0 | 26 | 42 | 3 | 16.5 | 16 | 0 | 26 | 42 | 3 | 16.5 | 16 | 0 | 26 | 42 | 3 | 16.5 |
| 201-300 | 13 | 0 | 9 | 22 | 1 | 17.0 | 16 | 0 | 18 | 34 | 2 | 17.4 | 16 | 0 | 18 | 34 | 3 | 17.4 | 17 | 0 | 28 | 45 | 3 | 16.0 | 18 | 0 | 37 | 55 | 4 | 15.0 | 33 | 1 | 47 | 80 | 6 | 13.2 |
| 301-400 | 14 | 0 | 8 | 22 | 2 | 16.7 | 16 | 0 | 19 | 35 | 2 | 17.0 | 18 | 0 | 28 | 46 | 3 | 15.5 | 19 | 0 | 41 | 60 | 4 | 14.3 | 19 | 0 | 41 | 60 | 4 | 14.3 | 35 | 1 | 60 | 95 | 7 | 12.8 |
| 401-500 | 14 | 0 | 8 | 22 | 2 | 16.7 | 16 | 0 | 19 | 35 | 2 | 17.0 | 19 | 0 | 28 | 47 | 3 | 15.3 | 20 | 0 | 40 | 60 | 4 | 14.0 | 34 | 1 | 51 | 85 | 6 | 14.0 | 36 | 1 | 74 | 110 | 8 | 12.2 |
| 501-600 | 16 | 0 | 19 | 35 | 2 | 16.6 | 16 | 0 | 19 | 35 | 2 | 17.0 | 19 | 0 | 29 | 48 | 3 | 15.1 | 20 | 0 | 45 | 65 | 4 | 13.8 | 37 | 1 | 63 | 100 | 7 | 13.8 | 50 | 2 | 75 | 125 | 9 | 11.6 |
| 601-800 | 16 | 0 | 20 | 36 | 2 | 16.6 | 16 | 0 | 20 | 36 | 2 | 16.7 | 19 | 0 | 30 | 49 | 3 | 14.9 | 22 | 0 | 58 | 80 | 5 | 13.0 | 39 | 1 | 81 | 120 | 8 | 11.6 | 55 | 2 | 105 | 160 | 11 | 10.8 |
| 801-1000 | 16 | 0 | 20 | 36 | 2 | 16.5 | 16 | 0 | 20 | 36 | 2 | 16.7 | 20 | 0 | 45 | 65 | 4 | 13.8 | 37 | 1 | 58 | 95 | 6 | 12.2 | 41 | 1 | 94 | 135 | 9 | 11.1 | 55 | 2 | 120 | 175 | 12 | 10.5 |
| 1001-2000 | 17 | 0 | 19 | 36 | 2 | 16.5 | 19 | 0 | 31 | 50 | 3 | 14.8 | 21 | 0 | 44 | 65 | 4 | 13.6 | 39 | 1 | 71 | 110 | 7 | 11.5 | 55 | 2 | 110 | 165 | 11 | 10.6 | 80 | 3 | 165 | 245 | 16 | 9.5 |
| 2001-3000 | 17 | 0 | 19 | 36 | 2 | 16.5 | 19 | 0 | 31 | 50 | 3 | 14.8 | 21 | 0 | 44 | 65 | 4 | 13.0 | 41 | 1 | 89 | 130 | 8 | 11.0 | 60 | 2 | 145 | 205 | 13 | 9.8 | 95 | 4 | 210 | 305 | 20 | 9.2 |
| 3001-4000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 19 | 0 | 31 | 50 | 3 | 14.8 | 22 | 0 | 58 | 80 | 4 | 13.0 | 43 | 1 | 102 | 145 | 9 | 10.5 | 80 | 3 | 160 | 240 | 15 | 9.4 | 115 | 5 | 250 | 365 | 23 | 8.8 |
| 4001-5000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 19 | 0 | 31 | 50 | 3 | 14.8 | 22 | 0 | 58 | 80 | 4 | 13.0 | 45 | 1 | 120 | 165 | 10 | 10.0 | 85 | 3 | 180 | 265 | 16 | 8.9 | 160 | 7 | 305 | 465 | 28 | 8.1 |
| 5001-7000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 19 | 0 | 31 | 50 | 3 | 14.8 | 22 | 0 | 58 | 80 | 4 | 13.0 | 65 | 1 | 120 | 185 | 11 | 9.6 | 85 | 3 | 200 | 285 | 17 | 8.7 | 210 | 9 | 450 | 660 | 38 | 7.4 |
| 7001-10,000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 19 | 0 | 36 | 55 | 3 | 14.6 | 23 | 0 | 57 | 80 | 4 | 12.7 | 65 | 1 | 140 | 205 | 12 | 9.3 | 90 | 3 | 230 | 320 | 19 | 8.5 | 235 | 10 | 550 | 785 | 44 | 7.1 |
| 10,001-20,000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 21 | 0 | 44 | 65 | 4 | 13.6 | 23 | 0 | 72 | 95 | 6 | 12.0 | 65 | 2 | 160 | 225 | 13 | 9.0 | 105 | 4 | 265 | 370 | 22 | 8.3 | 270 | 12 | 625 | 895 | 50 | 7.0 |
| 20,001-50,000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 21 | 0 | 44 | 65 | 4 | 13.6 | 43 | 1 | 92 | 135 | 8 | 10.6 | 70 | 2 | 175 | 245 | 14 | 8.8 | 125 | 5 | 315 | 440 | 26 | 8.1 | 295 | 13 | 725 | 1020 | 57 | 6.9 |
| 50,001-100,000 | 17 | 0 | 20 | 37 | 2 | 16.5 | 23 | 0 | 62 | 85 | 5 | 12.5 | 44 | 1 | 106 | 150 | 9 | 10.3 | 70 | 2 | 205 | 275 | 16 | 8.7 | 150 | 6 | 385 | 535 | 31 | 7.7 | 335 | 15 | 845 | 1180 | 66 | 6.8 |

## TABLE DA-5

### Average Outgoing Quality Limit = 5.0%

Process Average % bands (left to right: 0–.10, .11–1.00, 1.01–2.00, 2.01–3.00, 3.01–4.00, 4.01–5.00). For each band: Trial 1 ($n_1$, $c_1$); Trial 2 ($n_2$, $n_1+n_2$, $c_2$); $P_t\%$.

| Lot Size | 0–.10 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ | .11–1.00 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ | 1.01–2.00 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ | 2.01–3.00 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ | 3.01–4.00 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ | 4.01–5.00 $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $P_t\%$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–5 | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — | All | 0 | — | — | — | — |
| 6–50 | 6 | 0 | 10 | 16 | 1 | 30.5 | 6 | 0 | 10 | 16 | 1 | 30.5 | 6 | 0 | 5 | 11 | 1 | 30.5 | 6 | 0 | 5 | 11 | 1 | 30.5 | 6 | 0 | 5 | 11 | 1 | 30.5 | 6 | 0 | — | — | — | 30.5 |
| 51–100 | 10 | 0 | 6 | 16 | 1 | 26.5 | 11 | 0 | 5 | 16 | 1 | 26.5 | 11 | 0 | 4 | 15 | 1 | 26.5 | 11 | 0 | 11 | 22 | 2 | 25.0 | 11 | 0 | 11 | 22 | 2 | 25.0 | 12 | 0 | 18 | 30 | 3 | 23.0 |
| 101–200 | 11 | 0 | 6 | 17 | 1 | 26.0 | 12 | 0 | 15 | 27 | 2 | 22.0 | 12 | 0 | 10 | 22 | 2 | 22.0 | 14 | 0 | 22 | 36 | 3 | 19.8 | 14 | 0 | 22 | 36 | 3 | 19.8 | 14 | 0 | 30 | 44 | 4 | 19.0 |
| 201–300 | 11 | 0 | 7 | 18 | 1 | 25.0 | 14 | 0 | 14 | 28 | 2 | 21.0 | 14 | 0 | 24 | 38 | 3 | 19.3 | 14 | 0 | 24 | 38 | 3 | 19.3 | 15 | 0 | 32 | 47 | 4 | 18.0 | 27 | 1 | 48 | 75 | 7 | 16.3 |
| 301–400 | 11 | 0 | 8 | 19 | 1 | 25.0 | 15 | 0 | 13 | 28 | 2 | 21.0 | 15 | 0 | 24 | 39 | 3 | 19.0 | 16 | 0 | 33 | 49 | 4 | 17.5 | 27 | 1 | 38 | 65 | 6 | 16.6 | 29 | 1 | 56 | 85 | 8 | 15.5 |
| 401–500 | 13 | 0 | 15 | 28 | 2 | 21.0 | 15 | 0 | 13 | 28 | 2 | 21.0 | 15 | 0 | 24 | 39 | 3 | 19.0 | 16 | 0 | 34 | 50 | 4 | 17.1 | 29 | 1 | 51 | 80 | 7 | 15.5 | 30 | 1 | 70 | 100 | 9 | 14.9 |
| 501–600 | 13 | 0 | 15 | 28 | 2 | 21.0 | 15 | 0 | 13 | 28 | 2 | 21.0 | 15 | 0 | 25 | 40 | 3 | 18.7 | 16 | 0 | 34 | 50 | 4 | 17.1 | 31 | 1 | 64 | 95 | 8 | 14.3 | 43 | 2 | 72 | 115 | 10 | 13.9 |
| 601–800 | 13 | 0 | 16 | 29 | 2 | 20.5 | 16 | 0 | 13 | 29 | 2 | 20.5 | 16 | 0 | 34 | 50 | 4 | 17.1 | 17 | 0 | 43 | 60 | 5 | 16.2 | 32 | 1 | 78 | 110 | 9 | 13.9 | 45 | 2 | 90 | 135 | 12 | 13.5 |
| 801–1000 | 13 | 0 | 16 | 29 | 2 | 20.5 | 16 | 0 | 13 | 29 | 2 | 20.5 | 16 | 0 | 34 | 50 | 4 | 17.1 | 30 | 1 | 45 | 75 | 6 | 15.0 | 45 | 2 | 75 | 120 | 10 | 13.3 | 60 | 3 | 110 | 170 | 14 | 12.4 |
| 1001–2000 | 13 | 0 | 16 | 29 | 2 | 20.5 | 17 | 0 | 23 | 40 | 3 | 18.7 | 17 | 0 | 33 | 50 | 4 | 17.1 | 31 | 1 | 59 | 90 | 7 | 14.5 | 50 | 2 | 100 | 150 | 12 | 12.7 | 75 | 4 | 160 | 235 | 19 | 11.5 |
| 2001–3000 | 13 | 0 | 16 | 29 | 2 | 21.0 | 17 | 0 | 24 | 41 | 3 | 18.4 | 17 | 0 | 48 | 65 | 5 | 15.5 | 32 | 1 | 68 | 100 | 8 | 14.0 | 50 | 2 | 130 | 180 | 14 | 12.0 | 95 | 5 | 185 | 280 | 22 | 11.0 |
| 3001–4000 | 14 | 0 | 15 | 29 | 2 | 21.0 | 18 | 0 | 23 | 41 | 3 | 18.4 | 18 | 0 | 47 | 65 | 5 | 15.5 | 34 | 1 | 81 | 115 | 9 | 13.5 | 65 | 3 | 135 | 200 | 15 | 11.3 | 95 | 5 | 255 | 350 | 27 | 10.5 |
| 4001–5000 | 14 | 0 | 16 | 30 | 2 | 20.5 | 18 | 0 | 23 | 41 | 3 | 18.0 | 18 | 0 | 47 | 65 | 5 | 15.5 | 35 | 1 | 95 | 130 | 10 | 13.0 | 70 | 3 | 155 | 225 | 17 | 11.0 | 130 | 7 | 260 | 390 | 29 | 10.0 |
| 5001–7000 | 14 | 0 | 16 | 30 | 2 | 20.5 | 18 | 0 | 24 | 42 | 3 | 18.0 | 18 | 0 | 47 | 65 | 5 | 15.5 | 50 | 2 | 90 | 140 | 11 | 12.7 | 70 | 3 | 185 | 255 | 19 | 10.7 | 160 | 9 | 355 | 515 | 38 | 9.2 |
| 7001–10,000 | 14 | 0 | 16 | 30 | 2 | 20.5 | 19 | 0 | 23 | 42 | 3 | 18.0 | 19 | 0 | 56 | 75 | 5 | 15.0 | 50 | 2 | 105 | 155 | 12 | 12.1 | 85 | 4 | 200 | 285 | 21 | 10.4 | 180 | 10 | 430 | 610 | 44 | 9.2 |
| 10,001–20,000 | 14 | 0 | 17 | 31 | 2 | 20.5 | 19 | 0 | 36 | 55 | 4 | 16.4 | 19 | 0 | 56 | 75 | 5 | 15.0 | 50 | 2 | 125 | 175 | 13 | 11.7 | 100 | 5 | 220 | 320 | 23 | 10.0 | 215 | 12 | 490 | 705 | 50 | 8.9 |
| 20,001–50,000 | 14 | 0 | 17 | 31 | 2 | 20.5 | 33 | 1 | 22 | 55 | 4 | 16.4 | 33 | 1 | 72 | 105 | 8 | 13.5 | 50 | 2 | 135 | 185 | 14 | 11.3 | 120 | 6 | 290 | 410 | 29 | 9.5 | 230 | 13 | 605 | 835 | 59 | 8.7 |
| 50,001–100,000 | 14 | 0 | 18 | 32 | 2 | 20.5 | 34 | 1 | 31 | 65 | 5 | 15.6 | 34 | 1 | 86 | 120 | 9 | 13.1 | 55 | 2 | 160 | 215 | 16 | 11.0 | 140 | 7 | 315 | 455 | 32 | 9.3 | 265 | 15 | 705 | 970 | 68 | 8.5 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.
$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.
$P_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_c$) = 0.10.

# TABLE IV CONT'D: DOUBLE SAMPLING LOT INSPECTION TABLES—BASED ON STATED VALUES OF "AVERAGE OUTGOING QUALITY LIMIT"

TABLE DA-7

Average Outgoing Quality Limit = 7.0%

| Lot Size | 0–.14 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | .15–1.40 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | 1.41–2.80 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | 2.81–4.20 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | 4.21–5.60 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% | 5.61–7.00 $n_1$ | $c_1$ | $n_2$ | $n_1+n_2$ | $c_2$ | Pt% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–5 | All 5 | 0 | – | – | – | – | All 5 | 0 | – | – | – | – | All 5 | 0 | – | – | – | – | All 5 | 0 | – | – | – | – | All 5 | 0 | – | – | – | – | All 5 | 0 | – | – | – | – |
| 6–25 | 5 | 0 | – | – | – | 35.5 | 5 | 0 | – | – | – | 35.5 | 5 | 0 | – | – | – | 35.5 | 5 | 0 | – | – | – | 35.5 | 5 | 0 | – | – | – | 35.5 | 5 | 0 | – | – | – | 35.5 |
| 26–50 | 7 | 0 | 4 | 11 | 1 | 38.5 | 7 | 0 | 4 | 11 | 1 | 38.5 | 7 | 0 | 4 | 11 | 1 | 38.5 | 7 | 0 | 4 | 11 | 1 | 38.5 | 8 | 0 | 8 | 16 | 2 | 34.0 | 8 | 0 | 8 | 16 | 2 | 34.0 |
| 51–100 | 7 | 0 | 5 | 12 | 1 | 36.5 | 7 | 0 | 5 | 12 | 1 | 36.5 | 9 | 0 | 9 | 18 | 2 | 31.5 | 9 | 0 | 9 | 18 | 2 | 31.5 | 10 | 0 | 14 | 24 | 3 | 28.5 | 10 | 0 | 14 | 24 | 3 | 28.5 |
| 101–200 | 8 | 0 | 5 | 13 | 1 | 36.0 | 9 | 0 | 10 | 19 | 2 | 30.5 | 10 | 0 | 15 | 25 | 3 | 27.5 | 10 | 0 | 15 | 25 | 3 | 27.5 | 11 | 0 | 22 | 33 | 4 | 25.5 | 18 | 1 | 28 | 46 | 6 | 24.0 |
| 201–300 | 8 | 0 | 6 | 14 | 1 | 35.5 | 9 | 0 | 11 | 20 | 2 | 30.0 | 10 | 0 | 17 | 27 | 3 | 27.0 | 11 | 1 | 24 | 35 | 4 | 25.0 | 19 | 1 | 28 | 47 | 6 | 23.5 | 20 | 1 | 40 | 60 | 8 | 22.0 |
| 301–400 | 9 | 0 | 11 | 20 | 2 | 30.0 | 9 | 0 | 11 | 20 | 2 | 30.0 | 11 | 0 | 17 | 28 | 3 | 26.0 | 11 | 1 | 25 | 36 | 4 | 24.5 | 20 | 1 | 35 | 55 | 7 | 22.0 | 29 | 2 | 41 | 70 | 9 | 21.0 |
| 401–500 | 9 | 0 | 11 | 20 | 2 | 30.0 | 9 | 0 | 11 | 20 | 2 | 30.0 | 11 | 0 | 17 | 28 | 3 | 26.0 | 12 | 0 | 32 | 44 | 5 | 23.0 | 22 | 1 | 43 | 65 | 8 | 20.5 | 31 | 2 | 59 | 90 | 11 | 19.5 |
| 501–600 | 9 | 0 | 12 | 21 | 2 | 29.5 | 9 | 0 | 12 | 21 | 2 | 29.5 | 12 | 0 | 25 | 37 | 4 | 24.0 | 21 | 1 | 34 | 55 | 6 | 21.0 | 23 | 1 | 52 | 75 | 9 | 19.5 | 32 | 2 | 63 | 95 | 12 | 19.0 |
| 601–800 | 9 | 0 | 12 | 21 | 2 | 29.5 | 9 | 0 | 12 | 21 | 2 | 29.5 | 12 | 0 | 25 | 37 | 4 | 24.0 | 22 | 1 | 43 | 65 | 7 | 20.0 | 32 | 2 | 53 | 85 | 10 | 19.0 | 41 | 3 | 74 | 115 | 14 | 18.3 |
| 801–1000 | 9 | 0 | 12 | 21 | 2 | 29.5 | 9 | 0 | 18 | 29 | 3 | 25.5 | 12 | 0 | 25 | 37 | 4 | 24.0 | 23 | 1 | 42 | 65 | 7 | 19.8 | 33 | 2 | 62 | 95 | 11 | 18.4 | 43 | 3 | 82 | 125 | 15 | 17.5 |
| 1001–2000 | 10 | 0 | 11 | 21 | 2 | 29.0 | 11 | 0 | 18 | 29 | 3 | 25.5 | 12 | 0 | 25 | 37 | 4 | 24.0 | 23 | 1 | 47 | 70 | 8 | 19.2 | 34 | 2 | 81 | 115 | 13 | 17.8 | 55 | 4 | 115 | 170 | 20 | 16.5 |
| 2001–3000 | 10 | 0 | 11 | 21 | 2 | 29.0 | 11 | 0 | 19 | 30 | 3 | 25.5 | 13 | 0 | 34 | 47 | 5 | 21.5 | 24 | 1 | 56 | 80 | 9 | 18.7 | 44 | 3 | 91 | 135 | 15 | 17.0 | 65 | 5 | 135 | 200 | 23 | 16.0 |
| 3001–4000 | 10 | 0 | 11 | 21 | 2 | 29.0 | 11 | 0 | 19 | 30 | 3 | 25.5 | 13 | 0 | 34 | 47 | 5 | 21.5 | 24 | 1 | 66 | 90 | 10 | 18.2 | 47 | 3 | 103 | 150 | 16 | 16.0 | 75 | 6 | 175 | 250 | 28 | 15.0 |
| 4001–5000 | 10 | 0 | 11 | 21 | 2 | 29.0 | 11 | 0 | 19 | 30 | 3 | 25.5 | 13 | 0 | 35 | 48 | 5 | 21.5 | 26 | 2 | 74 | 100 | 11 | 17.7 | 50 | 3 | 135 | 185 | 19 | 15.0 | 100 | 8 | 225 | 325 | 35 | 14.0 |
| 5001–7000 | 10 | 0 | 12 | 22 | 2 | 28.5 | 11 | 0 | 19 | 30 | 3 | 26.0 | 14 | 0 | 46 | 60 | 6 | 20.0 | 37 | 2 | 78 | 115 | 12 | 16.5 | 65 | 4 | 155 | 220 | 22 | 14.0 | 115 | 9 | 265 | 380 | 40 | 13.5 |
| 7001–10,000 | 10 | 0 | 12 | 22 | 2 | 28.5 | 12 | 0 | 26 | 38 | 4 | 23.5 | 25 | 1 | 50 | 75 | 8 | 18.5 | 38 | 2 | 87 | 125 | 13 | 16.2 | 75 | 5 | 180 | 255 | 25 | 13.6 | 130 | 10 | 310 | 440 | 45 | 13.0 |
| 10,001–20,000 | 10 | 0 | 12 | 22 | 2 | 28.5 | 12 | 0 | 27 | 39 | 4 | 23.0 | 25 | 1 | 55 | 80 | 9 | 18.0 | 38 | 2 | 97 | 135 | 14 | 16.0 | 85 | 6 | 210 | 295 | 29 | 13.2 | 150 | 12 | 370 | 520 | 52 | 12.5 |
| 20,001–50,000 | 10 | 0 | 12 | 22 | 2 | 28.5 | 13 | 0 | 36 | 49 | 5 | 21.0 | 25 | 1 | 60 | 85 | 9 | 17.8 | 38 | 2 | 107 | 145 | 15 | 15.8 | 100 | 7 | 235 | 335 | 33 | 12.9 | 180 | 14 | 460 | 640 | 63 | 12.0 |
| 50,001–100,000 | 10 | 0 | 12 | 22 | 2 | 28.5 | 13 | 0 | 36 | 49 | 5 | 21.0 | 26 | 1 | 69 | 95 | 10 | 17.5 | 39 | 2 | 111 | 150 | 16 | 15.7 | 110 | 8 | 300 | 410 | 40 | 12.6 | 205 | 16 | 555 | 760 | 75 | 11.7 |

## TABLE DA-10
### Average Outgoing Quality Limit = 10.0%

Process Average %

| Lot Size | 0–20 | | | | | | .21–2.00 | | | | | | 2.01–4.00 | | | | | | 4.01–6.00 | | | | | | 6.01–8.00 | | | | | | 8.01–10.00 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ | $n_1$ | $c_1$ | $n_2$ | $n_1{+}n_2$ | $c_2$ | $p_t\%$ |
| 1–3 | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – | All | 0 | – | – | – | – |
| 4–15 | 3 | 0 | – | – | – | 50.0 | 3 | 0 | – | – | – | 50.0 | 3 | 0 | – | – | – | 50.0 | 3 | 0 | – | – | – | 50.0 | 3 | 0 | – | – | – | 50.0 | 3 | 0 | – | – | – | 50.0 |
| 16–50 | 5 | 0 | 3 | 8 | 1 | 53.5 | 5 | 0 | 3 | 8 | 1 | 53.5 | 5 | 0 | 3 | 8 | 1 | 53.5 | 6 | 0 | 6 | 12 | 2 | 48.0 | 6 | 0 | 6 | 12 | 2 | 48.0 | 6 | 0 | 6 | 12 | 2 | 48.0 |
| 51–100 | 5 | 0 | 3 | 8 | 1 | 55.0 | 6 | 0 | 8 | 14 | 2 | 43.0 | 6 | 0 | 8 | 14 | 2 | 43.0 | 7 | 0 | 11 | 18 | 3 | 38.5 | 7 | 0 | 11 | 18 | 3 | 38.5 | 7 | 0 | 16 | 23 | 4 | 36.5 |
| 101–200 | 5 | 0 | 4 | 9 | 1 | 52.0 | 7 | 0 | 7 | 14 | 2 | 42.0 | 7 | 0 | 12 | 19 | 3 | 38.0 | 8 | 0 | 16 | 24 | 4 | 35.5 | 13 | 1 | 20 | 33 | 6 | 33.5 | 14 | 1 | 24 | 38 | 7 | 32.0 |
| 201–300 | 7 | 0 | 7 | 14 | 2 | 42.5 | 7 | 0 | 7 | 14 | 2 | 42.5 | 7 | 0 | 13 | 20 | 3 | 37.0 | 8 | 0 | 17 | 25 | 4 | 35.0 | 14 | 1 | 26 | 40 | 7 | 31.5 | 19 | 2 | 29 | 48 | 9 | 31.0 |
| 301–400 | 7 | 0 | 7 | 14 | 2 | 42.5 | 7 | 0 | 7 | 14 | 2 | 42.5 | 8 | 0 | 17 | 25 | 4 | 37.0 | 8 | 0 | 22 | 30 | 5 | 34.0 | 15 | 1 | 30 | 45 | 8 | 31.0 | 21 | 2 | 44 | 65 | 12 | 29.0 |
| 401–500 | 7 | 0 | 8 | 15 | 2 | 40.0 | 7 | 0 | 8 | 15 | 2 | 40.0 | 8 | 1 | 18 | 26 | 4 | 34.0 | 15 | 1 | 23 | 38 | 6 | 30.5 | 16 | 1 | 39 | 55 | 9 | 28.5 | 22 | 2 | 53 | 75 | 13 | 27.0 |
| 501–600 | 7 | 0 | 8 | 15 | 2 | 40.0 | 8 | 0 | 13 | 21 | 3 | 40.0 | 8 | 0 | 18 | 26 | 4 | 34.0 | 16 | 1 | 28 | 44 | 7 | 28.5 | 22 | 2 | 38 | 60 | 10 | 27.5 | 28 | 3 | 52 | 80 | 14 | 26.5 |
| 601–800 | 7 | 0 | 8 | 15 | 2 | 40.5 | 8 | 0 | 13 | 21 | 3 | 40.5 | 8 | 0 | 18 | 26 | 4 | 34.5 | 16 | 1 | 28 | 44 | 7 | 29.0 | 22 | 2 | 43 | 65 | 11 | 27.0 | 29 | 3 | 56 | 85 | 15 | 26.0 |
| 801–1000 | 7 | 0 | 8 | 15 | 2 | 40.5 | 8 | 0 | 13 | 21 | 3 | 40.5 | 9 | 0 | 18 | 27 | 4 | 33.0 | 16 | 1 | 34 | 50 | 8 | 28.0 | 24 | 2 | 56 | 80 | 13 | 25.5 | 36 | 4 | 69 | 105 | 18 | 24.5 |
| 1001–2000 | 7 | 0 | 8 | 15 | 2 | 40.5 | 8 | 0 | 14 | 22 | 3 | 34.0 | 9 | 0 | 23 | 32 | 5 | 31.0 | 17 | 1 | 38 | 55 | 9 | 27.5 | 24 | 2 | 61 | 85 | 14 | 25.0 | 45 | 5 | 95 | 140 | 23 | 23.0 |
| 2001–3000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 8 | 0 | 14 | 22 | 3 | 34.0 | 9 | 0 | 24 | 33 | 5 | 30.0 | 17 | 1 | 48 | 65 | 10 | 26.0 | 33 | 3 | 72 | 105 | 16 | 23.0 | 50 | 6 | 115 | 165 | 27 | 22.0 |
| 3001–4000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 8 | 0 | 14 | 22 | 3 | 34.5 | 9 | 0 | 24 | 33 | 5 | 30.0 | 24 | 2 | 46 | 70 | 11 | 25.0 | 41 | 4 | 99 | 140 | 21 | 21.5 | 70 | 8 | 150 | 220 | 34 | 20.5 |
| 4001–5000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 8 | 0 | 14 | 22 | 3 | 35.0 | 10 | 0 | 29 | 39 | 6 | 29.5 | 26 | 2 | 54 | 80 | 12 | 23.5 | 44 | 4 | 111 | 155 | 22 | 20.0 | 80 | 9 | 195 | 275 | 41 | 19.0 |
| 5001–7000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 9 | 0 | 18 | 27 | 4 | 32.5 | 16 | 1 | 29 | 45 | 7 | 28.5 | 27 | 2 | 63 | 90 | 13 | 22.5 | 50 | 5 | 120 | 170 | 24 | 19.5 | 90 | 10 | 240 | 330 | 47 | 18.0 |
| 7001–10,000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 9 | 0 | 18 | 27 | 4 | 32.5 | 17 | 1 | 38 | 55 | 8 | 26.0 | 27 | 2 | 68 | 95 | 14 | 22.0 | 60 | 6 | 145 | 205 | 28 | 18.5 | 110 | 12 | 265 | 375 | 53 | 17.5 |
| 10,001–20,000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 9 | 0 | 18 | 27 | 4 | 32.5 | 17 | 1 | 38 | 55 | 8 | 26.0 | 28 | 2 | 77 | 105 | 15 | 22.0 | 70 | 7 | 165 | 235 | 32 | 18.0 | 125 | 14 | 320 | 445 | 62 | 17.0 |
| 20,001–50,000 | 7 | 0 | 8 | 15 | 2 | 41.0 | 9 | 0 | 18 | 27 | 4 | 32.5 | 18 | 1 | 42 | 60 | 9 | 25.5 | 28 | 2 | 87 | 115 | 17 | 21.5 | 80 | 8 | 205 | 285 | 39 | 17.5 | 140 | 16 | 355 | 495 | 69 | 16.8 |
| 50,001–100,000 | 8 | 0 | 14 | 22 | 3 | 33.5 | 9 | 0 | 25 | 34 | 5 | 30.0 | 18 | 1 | 52 | 70 | 10 | 24.5 | 36 | 3 | 99 | 135 | 20 | 21.0 | 85 | 8 | 245 | 330 | 44 | 17.0 | 150 | 17 | 390 | 540 | 77 | 16.6 |

$n_1$ = Size of First Sample; $n_2$ = Size of Second Sample; entry of "All" indicates that each piece in lot is to be inspected.
$c_1$ = Allowable Defect Number for First Sample; $c_2$ = Allowable Defect Number for First and Second Samples Combined.
$p_t$ = Lot Tolerance Per Cent Defective corresponding to a Consumer's Risk ($P_C$) = 0.10.