

- 1.0) All provisions of this bulletin will provide compliance with the intent and function of military specification MIL-STD-45662. In the event of any conflict between the provisions of this bulletin and MIL-STD-45662; MIL-STD-45662 is to prevail.
 - 1.1) The provisions of this bulletin are assumed to be part of any engineering drawing and/or production sequence. These provisions may or may not be called out specifically. However, if they are not specifically excepted they will be presumed to apply.
- 2.0) MICROMETER AND CALIPERS
 - 2.1) Some orders (usually at a customer's request) will require that any measurement device used in the production of that order be qualified at the start of the production cycle. Such a requirement shall take precedence over the provisions of paragraph 2.5 and the results of such special qualifications be recorded in the log in the manner prescribed in paragraph 2.7
 - 2.2) All micrometers and calipers are to be suitably marked by the Quality Control department. This marking is to be permanent in nature (electro etching or engraving is suggested). The marking will permit positive identification of the instrument.
 - 2.3) If the instrument is the property of an employee it must be marked. However, the marking method and placement of the marking is to be such that it is agreeable to the employee. If an agreement on the method and placement cannot be reached, the instrument is not to be used as a production tool. (A permanent marking of a serial number by the manufacturer of the instrument is acceptable as a marking).
 - 2.4) A log, QCMD 001, is to be kept in the Quality Control department which identifies the instrument by the identification marking (Par. 2.2 & 2.3), manufacturer, description (e.g. "0-1 inch micrometer"), normal shop location, and current service status ("active" or "inactive" see par. 2.4.1 & 2.4.2). This log also will list the dates and results of the periodic qualification required by paragraph 2.5 of this bulletin.
 - 2.4.1) Active service status is defined as those instruments being readily available for daily use.
 - 2.4.2) Inactive service is defined as those instruments that are held in reserve and are not available for daily use.
 - 2.5) All micrometers and calipers in active service are to be qualified at least three times per year. Under no condition is the interval between qualifications to exceed four months.
 - 2.6) The instruments must be taken into the Quality Control department and cleaned. After it has been in the department environment for at least one hour, it is to be checked for both accuracy and precision (see par 2.7.1).

2.7) The instrument is to be adjusted to provide suitable performance. If it cannot be adjusted the log is to show that the instrument was removed from service and the instrument is not to be used for production. The log is to show the qualification date, the amount of correction that was required (if any), the value of the standard used to qualify the instrument, and at least ten values read from the instrument. A notation of qualification or rejection and the inspector's name or initials will complete the log entry.

2.7.1) Accuracy is the condition or quality of providing a reading conforming exactly to the value of the measured standard. Precision is defined as the variation in readings obtained when repeating the same measurement.

2.8) Instruments removed from service shall be so marked and repaired by a qualified repair service or replaced as needed.

3.0) FUNCTIONAL GAGES

3.1) Functional gauges (i.e. plug gages, ring gages, etc.) are to be qualified before each production use in a manner similar to that described in paragraph 2.1.

3.2) The results of this qualification are to be logged in the same manner as described in paragraph 2.7.

3.3) Functional gages removed from service, shall be so marked and repaired by qualified repair service or replaced as needed.