



Designation: D 3070 – 00

Standard Test Method of Rapid Pressure Determination of Pressurized Products¹

This standard is issued under the fixed designation D 3070; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This test method covers rapid pressure determination for pressurized products.

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

2. Referenced Documents

2.1 *ASTM Standards:*

D 3060 Test Method for Pressure Drop Rate of Compressed Gas-Propelled Products²

D 3074 Test Methods for Pressure in Metal Aerosol Containers²

3. Significance and Use

3.1 This test method is a rapid technique for quality control, formula development, etc., where speed is necessary and a high degree of accuracy is not essential.

4. Apparatus

4.1 *Pressure Gage*, stainless steel construction, with a range from 0 to 160 psi (0 to 1.1 MPa), and preferably with one number graduations. The gage should be attached to a 1/8-in. Hoke needle valve, with all of the connections leak proof. Attach an adaptor³ to the needle valve to fit the aerosol valves on the cans to be tested (Fig. 1).

NOTE 1—Take care that there are no leaks in the gage apparatus. This can be checked by occasionally making a measurement with the attachment under water.

4.1.1 Care should be taken to clean the gage daily by repeated injection and venting of an approved cleaning solution

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² *Annual Book of ASTM Standards*, Vol 15.09.

³ Adaptors designed for use in measuring pressure in glass aerosols, available from Modern Machine Shop, 123 N. Hazel St., Danville, IL 61832, have been found satisfactory for this test method.

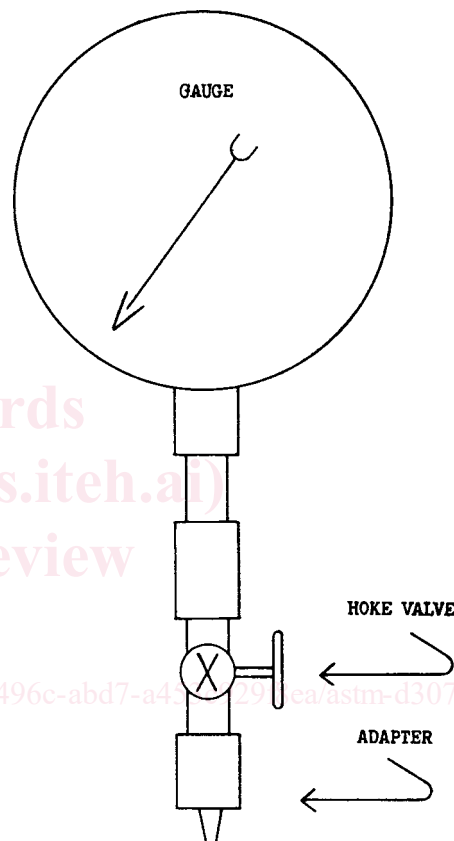


FIG. 1 Pressure Gage Apparatus

containing a bacteriostat. After cleaning, rinse the gage and apparatus with clean water and purge them with the prepressurizing gas prior to use.

4.1.2 For nonfood products, the gage apparatus may be cleaned between product uses by forcing suitable solvents into the gage, then venting it. This should be repeated several times until the gage is free of contamination.

NOTE 2—When changing from chlorinated solvents to water-base products, and vice versa, the above is particularly important to avoid possible contamination.

4.1.3 Use a separate gage apparatus for food products only.

4.2 *Water Bath*, constant-temperature, accurate to at least $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$).