



Standard Test Methods for Pressure in Metal Aerosol Containers¹

This standard is issued under the fixed designation D 3074; 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 reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These test methods cover the determination of pressure in metal aerosol containers.

1.2 The test methods appear in the following order:

Can-Piercing Method	Sections 6 to 9
Valve Measurement Method	10 to 13

1.3 *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 996 Terminology of Packaging and Distribution Environments²

D 3064 Terminology Relating to Aerosol Products²

E 1 Specification for ASTM Thermometers³

3. Terminology

3.1 General definitions for packaging and distribution environments are found in Terminology D 996.

3.2 General definitions of terms relating to aerosol products are found in Definitions D 3064.

4. Summary of Test Methods

4.1 The Can-Piercing Test Method utilizes can-puncturing devices for vapor-phase measurements.

4.2 The Valve Measurement Test Method measures the pressure through the valve, using adapters that are inserted in the valve stem, or form a seal around the top of the stem.

5. Significance and Use

5.1 The type of container specified by the Department of Transportation (DOT) for an aerosol product is determined, in part, by the pressure of the product. For many years, the

standard temperature for pressure measurements was 70°F (21°C). In recent years, the temperature was changed from 70 to 130°F (54°C).

5.2 A survey at the time the temperature was changed showed that these two methods for measuring pressures at 130°F (54°C) were in general use. These test methods can also be used for measuring pressures at temperatures other than 130°F (for example, 70°F (21°C)).

5.3 There is little possibility of contaminating the gage with the use of the Can-Piercing Test Method. However, the aerosol container is destroyed. The use of the Valve Measurement Test Method does not destroy the container.

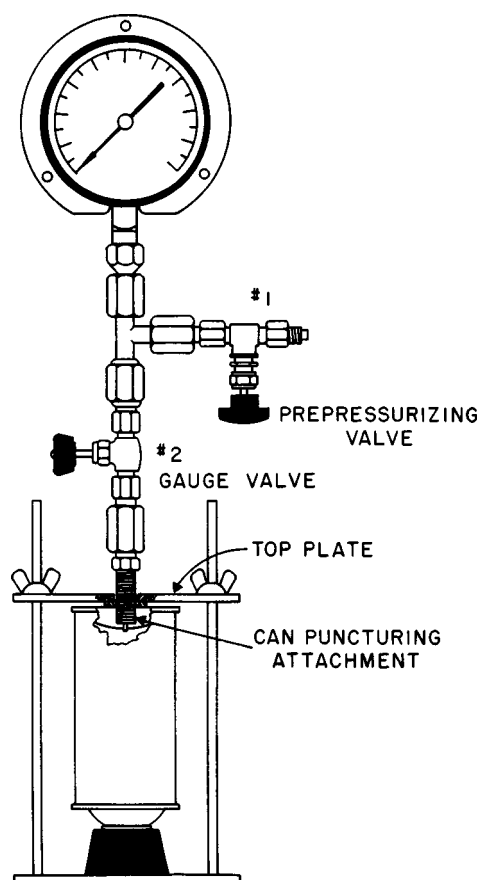


FIG. 1 Can-Piercing Assembly for Vapor Pressure Measurement

¹ These test methods are under the jurisdiction of ASTM Committee D-10 on Packaging and are the direct responsibility of Subcommittee D10.32 on Consumer Packages. These test methods were originally developed by the Chemical Specialties Manufacturers Assn.

Current edition approved Nov. 15, 1994. Published January 1995. Originally published as D 3074 – 72. Last previous edition D 3074 – 74 (1988)^{ε1}.

² Annual Book of ASTM Standards, Vol 15.09.

³ Annual Book of ASTM Standards, Vol 14.03.