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An American National Standard

Standard Specification for Paintball Cylinder Burst Disk Assemblies[1]

This standard is issued under the fixed designation F 2030; 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 This specification covers burst disk assemblies for paintball marker propellant sources their application and installation requirements.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

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 the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *Code of Federal Regulations:*[2]
DOT 49 CFR 1734d

2.2 *CGA Standard:*[3]
CGA S-1-1

3. Materials and Manufacture

3.1 The materials and processes used to manufacture the burst disk assembly shall result in items with mechanical strength sufficient to pass the applicable burst pressure tests. Materials used shall be corrosion resistant, chemically compatible with the propellant used and shall not promote galvanic action. Rupture disks shall be manufactured and tested in accordance with DOT 49 CFR 1734d and CGA S-1-1.

3.2 The burst disk assembly and related port features shall be free of burrs and sharp edges.

4. Performance

4.1 Burst disk assemblies intended for use with a service pressure of 12 410 kPa (1800 psi) shall rupture at not less than 18 615 kPa (2700 psi) and no more than 20 684 kPa (3000 psi) at a temperature of 71.1°C (160°F). At a temperature of 15.6°C (60°F) the same burst disk shall rupture at not less than 19 822 kPa (2875 psi) and no more than 21 890 kPa (3175 psi).

4.2 The relief hole in the burst disk assembly shall provide for flow to adequately vent the cylinder as specified in CGA S-1-1.

4.3 The rupture disk and seal shall be permanently retained on the plug to provide proper alignment and assembly.

5. Marking

5.1 The burst disk assembly shall be marked with its nominal burst pressure. The locations suitable for this marking are shown in Fig. 1. Markings shall appear in the U.S. Customary System of Units. A nominal burst pressure of 20 684 kPa (3000 psi) may appear as 3K or 3000.

5.2 The burst disk shall be marked with manufacturer code and rated burst pressure.

6. Physical Envelope, Burst Disk Assembly

6.1 The burst disk assembly shall conform to the physical envelope described in Fig. 1.

7. Physical Envelope, Burst Disk Port

7.1 The burst disk port shall conform to the physical envelope described in Fig. 2.

8. Installation

8.1 Prior to installation the mating port and the burst disk assembly shall be inspected to confirm compliance with physical envelope requirements, cleanliness, and general suitability for use.

8.2 It is recommended that the manufacturer supply installation instructions for their burst disk assemblies.

8.3 Unless instructed to do otherwise by the manufacturer, install the burst disk assembly into its mating port by threading to a torque of 10 500 ± 875 Nm (60 ± 5 in. · lb).

9. Keywords

9.1 burst disk; paintball marker; propellant

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[1] This specification is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.24 on Paintball and Equipment.

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[2] *Code of Federal Regulations*, available from U.S. Government Printing Office, Washington, DC 20402.

[3] Available from Compressed Gas Assoc., Inc., 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202–4102.

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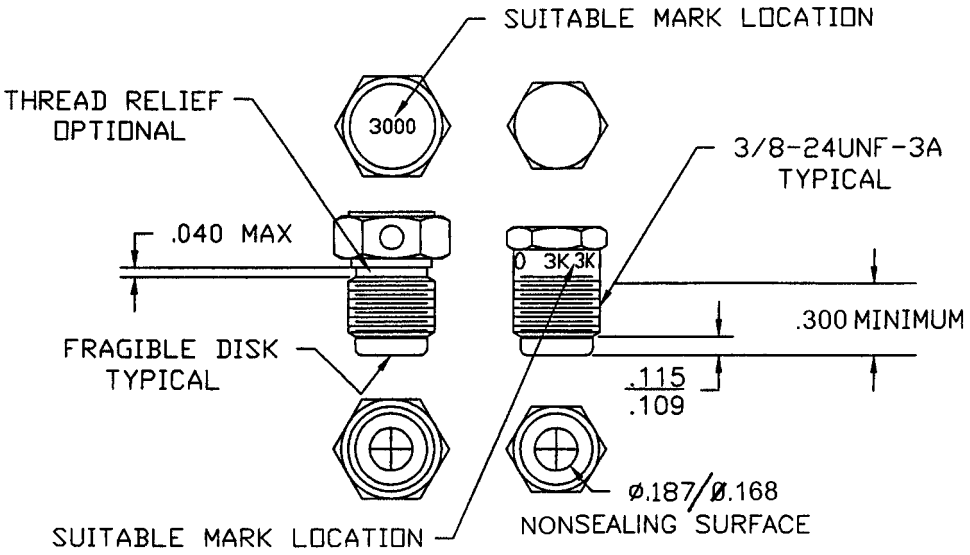


FIG. 1 Burst Disk Assembly

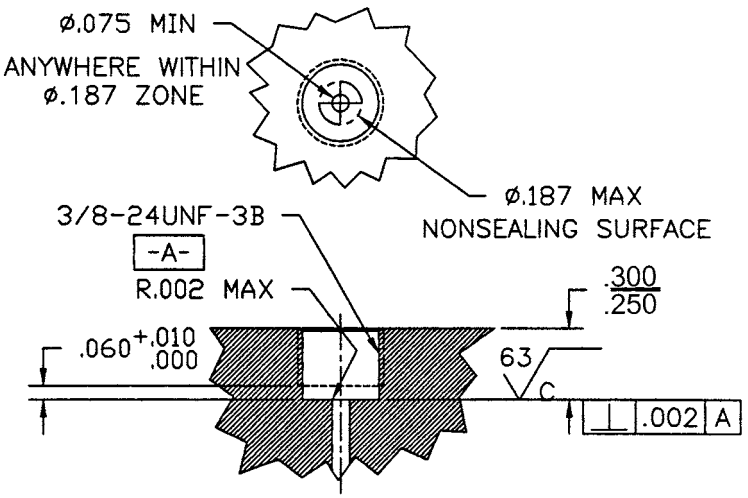


FIG. 2 Burst Disk Port

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