

[INCH-POUND]
A-A-59402
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SUPERSEDING
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COMMERCIAL ITEM DESCRIPTION
DRUM (FOR BULK PROPELLANT)

The General Services Administration has authorized the use of this commercial item description, for all federal agencies.

1. SCOPE. This CID covers the general requirements of fiber and steel drums for shipping and storing bulk propellant. The drum provides a safe, dry, and reliable means for transport and storing of ammunition bulk propellant.

2. CLASSIFICATION. The drums shall be of the following types:

Type I - Fiber
Type II - Steel, Removable Head

3. SALIENT CHARACTERISTICS.

3.1 Performance Characteristics.

3.1.1 Material. The drum shall be Type I (UN standard 1G) or Type II (UN standard 1A2) as specified by the procuring activity (see 7.3).

3.1.2 Stackability. The Type I and II drums shall be capable of being interlocked into the cover of another drum of the same manufacturer when stacked. Type II drums shall have a minimum separation of .50 inch between the bottom of one drum and the cover of the other when stacked.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, US Army TACOM-ARDEC, Attn.: AMSTA-AR-QAW-E, Bldg 12, Picatinny Arsenal, NJ 07806-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.
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AMSC N/A FSC 8140
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3.2 Identification.

3.2.1 Type I. Each drum shall be marked on the outer surface of the drum (excluding lid) with the information required by Code of Federal Regulations CFR 49, part 178 in permanent, easily visible, straight and simple letters and numbers at least .50 inch in height. Symbols denoting manufacturer may be used if registered with the Department of Transportation.

3.2.2 Type II. Each drum shall be embossed with the information required by Code of Federal Regulations CFR 49, part 178 in permanent, easily visible, straight and simple letters and numbers at least .50 inch in height. Symbols denoting manufacturer may be used if registered with the Department of Transportation. Marking may not be applied to removable head.

3.3 Weight capacity.

3.3.1 Types I and II. Each drum shall have a net weight carrying capacity of not less than 250 pounds of bulk propellant at any time.

3.4 Side wall bursting strength.

3.4.1 Type I. Each drum shall have a side wall bursting strength of at least 1000 pounds.

3.5 Volume.

3.5.1 Types I and II. Each drum shall have a nominal capacity of 21 gallon.

3.6 Latching mechanism (Types I and II). The drums shall utilize a latching mechanism that allows quick access to the contents (without using special tools), allows the drums to be resealed and reused, remain closed during shock and vibration, and provide for the placement of a wire security seal. The closure devices shall remain secure and leak-proof under normal conditions of transport.

3.7 Body, bottom, and cover construction.

3.7.1 Type I. The body of the drum shall be constructed of multiple plies of heavy paper or fiberboard (without corrugations) firmly glued or laminated together and shall include one or more layers of barrier material. The assembled drum shall be sufficiently water-resistant so as not to de-laminate under normal conditions of transport.

3.7.2 Type II. The body and heads shall be constructed of steel sheets of suitable type and adequate thickness in relation to the capacity and intended use of the drums. The bottom of the drum shall be mechanically seamed or welded.

3.8 Body, bottom, and cover finish.

3.8.1 Type II.

3.8.1.1 Color. Exterior surfaces shall be colored forest green. Interior surfaces shall be colored light brown (buff).

3.8.1.2 Compatibility. Interior surfaces shall be provided with a protective finish that is compatible with the propellant being packed.

3.8.1.3 Corrosion resistance.

3.8.1.3.1 Type I. All metal surfaces shall be protected from corrosion through the application of suitable protective finish to prevent corrosion after being subjected to 40 hours of salt-spray.

3.8.1.3.2 Type II. After application of the protective finish, all metal surfaces shall be resistant to and show no evidence of corrosion when subjected to normal conditions of transport and storage.

3.9 Gaskets.

3.9.1 Type I. The gaskets shall be secured in place so that it shall not be removed when the drum is opened and shall ensure the drum is water-proof.

3.9.2 Type II. Closure devices for removable head drums must be so designed and applied that they will remain secure and drums will remain leakproof under normal conditions of transport. Gaskets shall be used with all removable heads and shall be secured in place so that it shall not be removed when the drum is opened.

3.10 Air test assembly.

3.10.1 Type II. The cover of the drum shall contain an air test assembly providing a .75 inch 14 threaded (internal) per inch American National Standard Institute Pipe threads opening with corresponding gasketed plug. Air test assembly shall remain leakproof with plug inserted after drop testing.

3.11 Compatibility. Adhesives used in bonding the gaskets and in the construction of Types I and II drums shall be compatible with the propellant.

3.12 Workmanship. Workmanship shall be in accordance with the highest grade of commercial industry practice for this type of work. The drums shall be clean, free of damage, or any defects which may affect their performance for the intended use.

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4.1 Type I. The drum shall be fully tested, certified, and marked as a 1G drum in accordance with Code of Federal Regulations, Title 49, Part 178 that is authorized to contain 250 pounds net weight of a solid Packing Group II hazardous material.

4.2 Type II. The drum shall be fully tested, certified, and marked as a 1A2 drum in accordance with Code of Federal Regulations, Title 49, Part 178 that is authorized to contain 250 pounds net weight of a solid Packing Group II hazardous material.

5. QUALITY ASSURANCE PROVISIONS.

5.1 Product Conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

5.2 Stackability. Stacking feature shall be demonstrated by the contractor that shows that the bottom of each drum can be stacked on top of another with

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an interlocking feature. Type II drums shall also demonstrate a .50 inch clearance between stacked drums.

5.3 Wet testing. Drums constructed with water absorbent material shall be tested in accordance with PPP-D-723 as follows:

- a. 120 hour spray and drop test using 250 pounds dry weight and 48 inch drop height.
- b. Ply separation and bonding test.
- c. Compression test (Dry/Wet). The dry top load, minimum, shall be: static = 2100 pounds; dynamic = 2800 pounds; and wet top load, minimum, shall be 75 per cent of the dry load.

5.4 Dry testing. Drums constructed of non-water absorbent material shall be tested in accordance with PPP-P-704 as follows:

- a. Drop test using 250 pounds dry weight and a drop height of 48 inches.
- b. Leakage test using a pressure of seven psig minimum using an air test assembly. The drums shall show no evidence of leakage or air pockets formed when pressurized internally and remain pressurized for a period of five minutes for metals and 30 minutes for plastics or composites.

5.5 Latching mechanism (Type I and II). The contractor shall demonstrate the opening, closing, and security seal attachment and breakage features.

5.6 Body, bottom, and cover.

5.6.1 Type I. The drum gasketed cover shall be subjected to a seal test. Submerge under three feet of water for 10 minutes and check for water intrusion on five drums per lot.

5.6.2 Type II. The drum seams and construction shall be examined to determine compliance with Paragraph 178.504 of 49 CFR Part 178.

5.7 Body, bottom, and cover finish.

5.7.1 Corrosion resistance.

5.7.1.1 Type I. Five drums shall be subject to the salt spray test in ASTM B117. After the test, the drums shall be examined for evidence of corrosion or other damage that would preclude the drum from operating properly.

5.7.1.2 Type II. The drums shall show no visible evidence of paint blistering, loss of paint adhesion, base metal corrosion after exposure to five per cent salt spray for 80 hours.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 Part Identification Number (PIN). The following part identification numbering procedure is for government purposes and does not constitute a requirement for the contractor. The PIN is to be used for items acquired to this description and is created as follows:

AAXXXXX	X
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CID Number _____

Type code (see 7.1.1) _____

7.1.1 Type identification codes. The type of the drum is identified by a one-digit identifier as shown below:

Type I = 1
Type II = 2

7.2 Source of documents.

7.2.1 The Code of Federal Regulations (CFR) is available by mail order from the Superintendent of Documents, ATTN: New Order, PO Box 371954, Pittsburgh, PA 15250-7954.

7.2.2 The federal specifications are available from the Defense Printing Service Detachment Office, Bldg. 4D Customer Service, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.2.3 ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.3 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this CID.
- b. Issue of Department of Defense Index of Standards and Specifications (DODISS) to be cited in the solicitation, and if required, the specific issue of individual documents referenced.
- c. Type of drum (see 3.1.1).
- d. Packaging and marking requirements (see 6).

7.4 Commercial products. Listed below are some suppliers that are known to furnish drums described in this document. Other suppliers may be available and should be considered. The selection of a supplier is not limited by the list contained herein. The list is provided for information only.

	<u>Product</u>	<u>Supplier</u>
a.	Type I - Fiber Drum	Greif Brothers Corporation 975 Glenn Street Van Wert, OH 45891 POC: Lisa Walton Phone: 800 548-2806 Fax: 419 238-2563
b.	Type II - Steel Drum	Rieke Corporation 500 West 7 th Street Auburn, IN 46706 POC: Mark L. Koenig Phone: 219 925-3700 Fax: 219 925-2493
c.	Type I & II	Stephen Gould 35 South Jefferson Road Whippany, NJ 07981 POC: Todd Irving Phone: 973 428-1510 Fax: 973 428-9634

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MILITARY INTEREST:

Custodian:

Army-AR

CIVIL AGENCY COORDINATING ACTIVITY:
GSA-FSS

Preparing Activity:
Army-AR

Project Number 8140-0209

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
A-A-59402

2. DOCUMENT DATE (YYMMDD)
990125

3. DOCUMENT TITLE DRUM (FOR BULK PROPELLANT)

4. NATURE OF CHANGE *Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*

b. ORGANIZATION

c. ADDRESS *(Include Zip Code)*

d. TELEPHONE *(Include Area Code)*
(1) Commercial
(2) AUTOVON
(if applicable)

7. DATE SUBMITTED
(YYMMDD)

8. PREPARING ACTIVITY

a. NAME Mr. Gary Vander Sande
COMMANDER, US ARMY TACOM-ARDEC

b. TELEPHONE *Include Area Code)*
(1) Commercial 973-724-2163
(2) AUTOVON 8802163

c. ADDRESS *(Include Zip Code)*
ATTN: AMSTA-AR-QAW-E
BLDG. 12
PICATINNY ARSENAL, NJ 07806-5000

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:
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