

INCH-POUND

MIL-DTL-17376F  
22 March 2007  
SUPERSEDING  
MIL-C-17376E  
4 September 1973

## DETAIL SPECIFICATION

### CAPS AND FLANGES, COMPRESSED-GAS CYLINDER, GENERAL SPECIFICATION FOR

Reactivated after 22 March 2007 and may be used for new and existing designs and acquisitions.

This specification is approved for use by all departments and agencies of the Department of Defense.

#### 1. SCOPE

1.1 Scope. This specification covers protection caps and mounting flanges for compressed-gas cylinder valves.

1.2 Classification. Caps and flanges should be in accordance with the applicable specification sheet as specified (see 3.1, 3.3, and 6.2). The following specification sheets provide detailed requirements for caps and flanges covered by this general specification:

- MIL-DTL-17376/1 - Cap
- MIL-DTL-17376/2 - Flange - low pressure
- MIL-DTL-17376/3 - Flange - high pressure

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Richmond, ATTN: DSCR-VEB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5616 or e-mailed to [STDZNMGT@dla.mil](mailto:STDZNMGT@dla.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST database at <http://assist.daps.dla.mil>.

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## 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of the documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see 6.2).

## FEDERAL STANDARDS

FED-STD-H28 - Screw-Thread Standards for Federal Services.

## DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-DTL-17376/1 - Caps and Flanges, Compressed-Gas Cylinder: Caps.  
 MIL-DTL-17376/2 - Caps and Flanges, Compressed-Gas Cylinder: Flanges,  
 Low Pressure.  
 MIL-DTL-17376/3 - Caps and Flanges, Compressed-Gas Cylinder: Flange,  
 High Pressure.

## DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-101 - Color Code for Pipelines & for Compressed Gas  
 Cylinders.  
 MIL-STD-1916 - DoD Preferred Methods for Acceptance of Product.

(Copies of these documents are available at <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

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2.3 Non-government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see 6.2).

## COMPRESSED GAS ASSOCIATION

CGA TB-17 - Test Methods for Evaluating Paints and Coatings on Refillable Steel Compressed Gas Cylinders.

(Copies of these documents are available at <http://www.cganet.com/> or from the Compressed Gas Association, 4221 Walney Road, 5th Floor, Chantilly, VA 20151-2923.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet. In the event of any conflict between the requirements of this specification and the specification sheet, the latter shall govern.

3.2 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

3.3 Material. Material shall be as specified herein and as in the applicable specification sheet (see 1.2).

3.4 Cap weight and thickness. The cap shall weigh less than 3-1/2 pounds. The thickness of the cap shall be not less than 0.100 inch. All caps less than 0.134 inch in wall thickness shall be reinforced longitudinally by being hexagonal or octagonal shaped or by having not less than four rolled beads or indentations when cylindrically shaped for adequate protection against impact.

3.5 Threads. Threads shall be in accordance with FED-STD-H28.

3.6 Cleaning, treating, and painting. The treatment and painting of cylinders shall be by any method or system that will provide a finish that will meet the requirements of CGA TB-17. The cylinders shall be color coded and stenciled in accordance with the requirements of MIL-STD-101 for the designated gas for which the cylinder is designed.

3.7 Workmanship. All parts of the caps and flanges shall be clean of harmful extraneous material such as sand, dirt, pits, spurs, scale, and flux. Rework shall be limited to procedures that do not reduce strength or affect function.

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## 4. VERIFICATION

4.1 Conformance inspection. Conformance inspection shall consist of the visual examination for defects listed in table I. Unless otherwise specified (see 6.2), the manufacturer shall select the type of sampling plan (attribute, variable, or continuous) in accordance with MIL-STD-1916.

TABLE I. Classification of defects.

Defect	Major
Material not as specified	101
Dimensions not as specified	102
Screw threads not as specified	103
Reinforcement not as specified	104
Weight of cap in excess of 3-1/2 pounds	105
Cleaning, treating and painting not as specified	106

4.1.1 Sample size. The sample size shall be selected in accordance with level 1 of tables I, II, and III of MIL-STD-1916.

4.1.2 Classification of defects. Major defects noted should be classified as shown in table I.

## 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the inventory control point's packaging activities within the military service or defense agency, or within the military service's system command. Packaging data retrieval is available from the managing military department's or defense agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The caps and flanges covered by this specification protect cylinder valves against damage in shipping, handling, and storage.

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6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Whether caps or flanges are required and applicable specification sheet and classification number (see 1.2).
- c. The specific issue of individual documents referenced (see 2.2.1 and 2.3).
- d. Sampling plan, if different (see 4.1).
- e. Packaging requirements (see 5.1).

6.3 Subject term (key word) listing.

screw  
threads  
valves

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Army - CR4  
Navy - YD  
Air Force - 68

Preparing Activity:

DLA - GS7

(Project 8120-2006-001)

Review Activities:

Army - MD  
Navy - MC

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at <http://assist.daps.dla.mil>.