

INCH-POUND

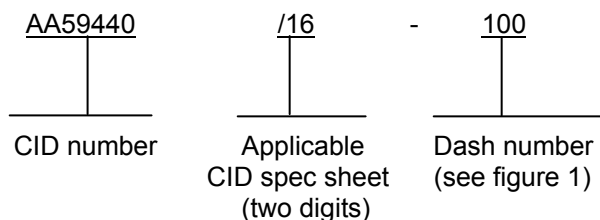
A-A-59440/16  
5 December 2012COMMERCIAL ITEM DESCRIPTION  
SPECIFICATION SHEET

## VALVE, ANGLE, SHUTOFF, WATER, OIL, AND GAS (WOG)

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

The complete requirements for procuring the valve, angle, shutoff, Water, Oil and Gas (WOG) described herein shall consist of this document and the issue in effect of A-A-59440.

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This Commercial Item Description (CID) specification sheet uses a classification system which is included in the PIN as shown in the following example (see NOTES).



## SALIENT CHARACTERISTICS.

Interface and physical dimensions. Valve, angle, shutoff, WOG supplied to this CID specification sheet shall be as specified herein (see figure 1).

Size. Nominal sizes of 1/4 inch through 1 inch with NPTF-1 threads.

Intended application. This item is for use in steam systems where pressures do not exceed 150 psig (10.3 bar) WOG at 150°F (65.6°C) and the liquid is compatible with brass.

Permissible variations in dimensions. Figure 1 lists the permissible variation in dimensions for each size. The external dimensions of the valve should not limit procurement unless the end item applications restrict these dimensions.

Optional designs. Figure 1 is for identification purposes only and is not intended to restrict designs or shapes not dimensioned.

Threads. Threads are dryseal NPTF-1 in accordance with CID A-A-59440.

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Materials.

Preferred valve material. Preferred material is brass in accordance with ASTM B61.

Brass. Brass shall be in accordance with the following:

ASTM B16/B16M	ASTM B121/B121M	ASTM B505/B505M	SAE AMS4845
ASTM B22	ASTM B124/B124M	ASTM B584	SAE AMS4855
ASTM B30	ASTM B148	ASTM B763	SAE AMS4860
ASTM B36/B36M	ASTM B176	ASTM B770	SAE AMS4862
ASTM B61	ASTM B271		SAE AMS4890
ASTM B62	ASTM B369		

Protective Coating. Brass: None.

Caution: Brass with lead contents shall not be used for potable water or oxygen systems.

Mounting. Mounting shall be horizontal.

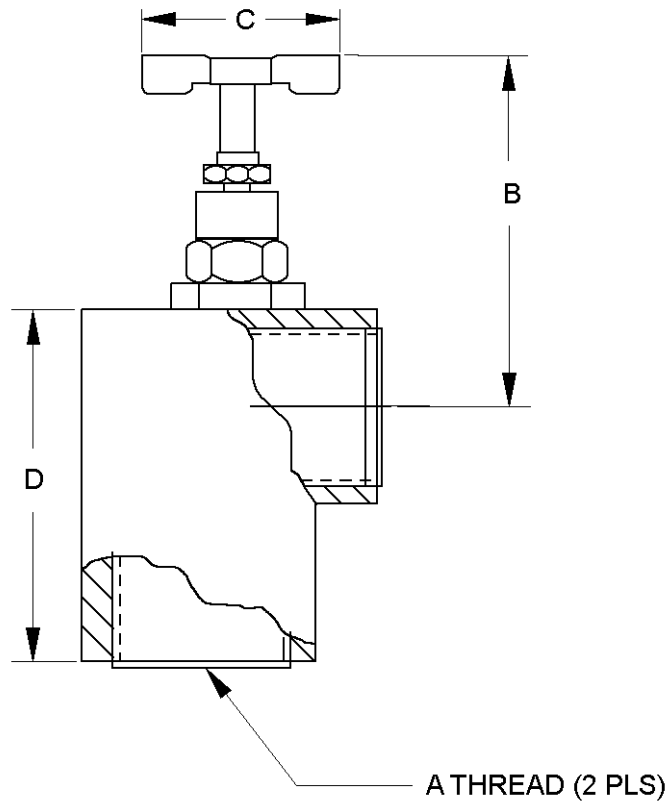
Pressure.

- a. Working Pressure: 150 psi (10.3 bar).
- b. Minimum opening pressure: 1 psi (.06 bar).

Test Pressures. Perform tests in accordance with A-A-59440 using API Standard 598.

- a. Shell test pressure 275 psig (19.0 bar).
- b. The seat test can be part of shell test in accordance with API Standard 598.
- c. Certification of testing can be used in place of testing if procuring activity accepts.

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Dash number	Nominal pipe size	A Pipe tread, NPTF-1	B Ref	C Ref	D Ref
100	1/4	1/4 - 18	4.625	2.5	4.625
101	3/8	3/8 - 18	4.625	2.5	4.625
102	1/2	1/2 - 14	5.1875	3	5.1875
103	3/4	3/4 - 14	6.125	3.5	6.125
104	1	1 - 11 1/2	6.875	4.125	6.875

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified tolerances are  $\pm .010$  inch (0.25 mm).
4. Oval port having same cross sectional area is acceptable.
5. Measurements across flats of hexagonal wrench pad shall be a standard measurement.

FIGURE 1. Valve, angle, shutoff, WOG.

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## NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

## Source of documents

## Commercial Item Description

A-A-59440 - Cock-Valves and Valves, General Requirements For

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

## American Petroleum Institute

API Standard 598 - Valve Inspection and Testing

(Copies of this document are available online at <http://www.api.org/Standards/> or from American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005-4070, Tel: 202-682-8000.)

## ASTM INTERNATIONAL

ASTM B16/B16M - Free-Cutting Brass Rod, Bar and Shapes for use in Screw Machines  
 ASTM B22 - Bronze Castings for Bridges and Turntables  
 ASTM B30 - Copper Alloys in Ingot Form  
 ASTM B36/B36M - Brass Plate, Sheet, Strip, and Rolled Bar  
 ASTM B61 - Steam or Valve Bronze Castings  
 ASTM B62 - Composition Bronze or Ounce Metal Castings  
 ASTM B121/B121M - Leaded Brass Plate, Sheet, Strip, and Rolled Bar  
 ASTM B124/B124M - Copper and Copper Alloy Forging Rod, Bar, and Shapes  
 ASTM B148 - Aluminum-Bronze Sand Castings  
 ASTM B176 - Copper-Alloy Die Castings  
 ASTM B271 - Copper-Base Alloy Centrifugal Castings  
 ASTM B369 - Copper-Nickel Alloy Castings  
 ASTM B505/B505M - Copper Alloy Continuous Castings  
 ASTM B584 - Copper Alloy Sand Castings for General Applications  
 ASTM B763 - Copper Alloy Sand Castings for Valve Applications  
 ASTM B770 - Copper-Beryllium Alloy Sand Castings for General Applications

(Copies of these documents are available online at <http://www.astm.org> or from the ASTM International, P.O. Box C700, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

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SAE INTERNATIONAL

- SAE AMS4845 - Tin Bronze Castings, Sand and Centrifugal  
87.5CU - 10SN - 2ZN as Cast
- SAE AMS4855 - Leaded Red Brass, Sand and Centrifugal Castings  
85CU - 5.0SN - 5.0PB - 5.0ZN as Cast
- SAE AMS4860 - Manganese Bronze, Sand and Centrifugal Castings  
58CU - 39ZN - 1.2FE - 1.0AL - 0.80MN as Cast
- SAE AMS4862 - Manganese Bronze, Sand and Centrifugal Castings  
63CU - 24ZN - 6.2AL - 3.8MN - 3.0FE High Strength, as Cast
- SAE AMS4890 - Copper-Beryllium Alloy Castings  
97CU - 2.1BE - 0.52CO - 0.28SI Solution Heat Treated (TBOO)

(Copies of these documents are available on line at [www.sae.org](http://www.sae.org) from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, and Tel: 877-606-7323 [inside USA and Canada] or 724-776-4970 [outside USA], email at [CustomerService@sae.org](mailto:CustomerService@sae.org).)

MILITARY INTERESTS:

Custodians:

Army - AR  
Navy - SH  
Air Force - 99  
DLA - CC

Review activities:

Army - AT, CR4, GL, MI  
Navy - AS, MC, SA

CIVIL AGENCY AND COORDINATING ACTIVITIES:

GSA - FSS

Preparing activity:

DLA - CC

(Project 4820-2012-017)

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