

INCH-POUND

A-A-59553

28 June 2001

SUPERSEDING

WW-C-633D

11 May 1992

## COMMERCIAL ITEM DESCRIPTION

COUPLING HALVES, CAP AND WYE; QUICK DISCONNECT  
PNEUMATIC HOSE, TWO-LUG UNIVERSAL TYPE

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

1. **SCOPE.** This commercial item description (CID) covers two-lug universal pneumatic hose, quick disconnect coupling halves, including cap and wye couplings.

2. **CLASSIFICATION.** The couplings will conform to the following types and sizes.

2.1 **Types.** The following are types of quick-disconnect, two-lug universal type, coupling halves, cap and wye, for pneumatic hose (see 7.6):

- |          |   |   |
|----------|---|---|
| Type I   | - | Coupling half, quick disconnect with male hose fitting end (figure 1).  |
| Type II  | - | Coupling half, quick disconnect with female NPT fitting end (figure 2). |
| Type III | - | Coupling half, quick disconnect with male NPT fitting end (figure 3).   |
| Type IV  | - | Coupling half, quick disconnect, wye (figure 4).                        |
| Type V   | - | Coupling half, quick disconnect, dead-end (cap) (figure 5).             |

2.2 **Sizes.** Couplings covered by this CID will be used with hose having the following inside diameters:

1/4 inch	5/8 inch
3/8 inch	3/4 inch
1/2 inch	1 inch

## 3. SALIENT CHARACTERISTICS.

3.1 **Description.** These quick disconnect coupling halves are suitable for use with pneumatic hose and hose accessories. The pneumatic hose fittings, hereinafter called fittings, shall have the same size quick disconnect ends for interconnection of hoses regardless of hose sizes. Requirements shall be as defined herein.

3.2 **Materials.** Materials shall be as specified herein. Basic fitting material shall be malleable iron or bronze (see 3.2.2 and 3.2.3). Materials not specified shall be selected by the contractor and shall be subject to all provisions of this CID.

Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be of use in improving this document should be addressed to: Defense Logistics Agency, Defense Supply Center, Columbus (DSCC-VAI), P.O. Box 3990, Columbus, OH 43216-5000.

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3.2.1 Dissimilar metals. Fitting parts shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration to which they are susceptible. Dissimilar metals shall not be used in intimate contact with each other unless protected against galvanic corrosion.

3.2.2 Malleable iron. Malleable iron castings (see also 3.2.4) shall conform to ASTM A197 or ASTM A47, grade 32510.

3.2.3 Bronze. Bronze castings shall conform to ASTM B61 or ASTM B584, UNS C85700.

3.2.4 Coating. Malleable iron fittings shall be zinc-coated in accordance with ASTM B633. Minimum film thickness shall be in accordance with ASTM B633 service condition 4 (very severe service).

### 3.3 Configuration.

3.3.1 Physical requirements. The fittings shall be commercial design and shall provide for interconnection between all types of fittings covered by this CID. The fittings shall have external lugs to provide a locking arrangement that will permit connection (or disconnection) of any two of the fittings by turning one into (or out of) the other a quarter of a turn. The fittings shall be furnished with lockwire holes. When the fittings are snapped together, at least one of the lockwire holes on each fitting shall line up to receive a lockwire or safety pin. A preformed packing shall be furnished with each fitting.

3.3.2 Type I coupling. The type I coupling halves shall conform to the configuration shown in figure 1 (see 7.6), and shall be the size specified (see 2.2).

3.3.3 Types II and III coupling halves. Type II and III coupling halves shall conform to the configurations shown in figures 2 and 3, respectively (see 7.6), and shall be the size specified (see 2.2) with ANSI/ASME B 1.20.1 NPT threads.

3.3.4 Types IV and V coupling halves. Type IV wye and type V cap couplings shall conform to the configurations shown in figures 4 and 5, respectively (see 7.6).

### 3.4 Performance.

3.4.1 Proof pressure. Fittings and preformed packings shall withstand, without leakage or distortion, a hydrostatic proof pressure of 165 pounds per square inch (psi).

3.4.2 Working pressure. Fittings conforming to this CID shall be rated for 110 psi working pressure.

3.5 Identification marking. The fittings shall be identified or marked in a legible and permanent manner with the type, size, and manufacturer's name or trademark.

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

## 5. **PRODUCT CONFORMANCE**.

5.1 Responsibility for inspection. The contractor is responsible for the performance of all inspections (examination and tests).

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

5.3 Examination. Each fitting shall be examined for compliance with requirements specified in 3.2 through 3.5. Any modification necessary following failure to meet the specified requirements shall receive particular attention for adequacy and suitability. This element of inspection shall encompass all examinations of material, configuration, performance, and marking requirements. Non-compliance with any specified requirement, or the presence of one or more defects, shall constitute cause for rejection.

6. **PACKAGING**. Preservation, packing, and marking shall be as specified in the contract or purchase order (see 7.2).

## 7. NOTES.

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

7.1 Intended use. The coupling halves, including cap and wye, are intended for use with pneumatic hose and hose accessories that are commonly used with air compressors and pneumatic tools.

7.2 Ordering data. The contract or order should specify the following:

- a. Title, number, and date of this CID.
- b. Part or identification number (PIN) (see 7.4) and quantity required.
- c. Packaging requirements (see 6).

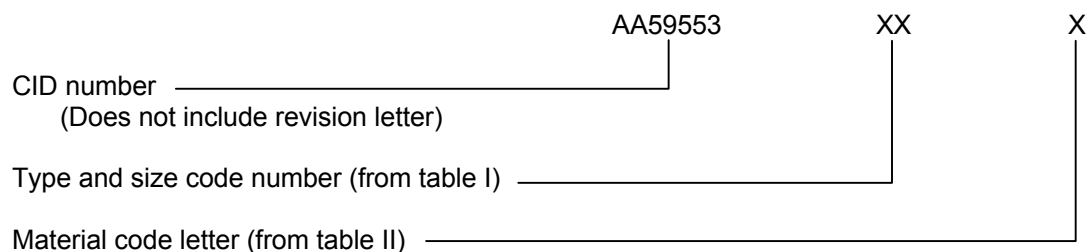
### 7.3 Addresses for obtaining copies of referenced documents.

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

7.3.2 Copies of ANSI/ASME standards are available from the American National Standards Institute, 11 W. 42<sup>nd</sup> Street, New York, NY 10036, or from the American Society of Mechanical Engineers, 3 Park Avenue, New York, NY 10017.

7.3.3 The Federal Acquisition Regulation (FAR) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.4 Part or Identification Number (PIN). The following part identification numbering procedure is for government purposes and does not constitute a requirement for the contractor. The PIN to be used for a fitting acquired using this CID is generated as follows:



7.4.1 Type and size of fitting. The size and type of hose fittings are identified by two digits (see table I).

TABLE I. Type and size code number.

Size (inch)	Type				
	I	II	III	IV	V
None				16	17
1/4		06	11		
3/8	01	07	12		
1/2	02	08	13		
5/8	03				
3/4	04	09	14		
1	05	10	15		

7.4.2 Material. The pneumatic hose fitting is made from a material (see 3.2) identified by a single letter (see table II).

TABLE II. Material code letter.

Code Letter	Material
B	Bronze
M	Malleable iron

7.4.3 Example of part or identification number: The PIN AA59553-04B specifies a 3/4 inch, type I, bronze fitting with male hose fitting end.

7.5 Cross reference data. Fittings conforming to this CID are interchangeable with fittings conforming to WW-C-633D.

7.6 Information figures. Figures 1 through 5 show fittings that have been found acceptable; however, the figures are included as examples of the five fitting types only, and are not intended to preclude the furnishing of other fittings that conform to this CID.

7.7 Key words.

Bronze  
Fitting, hose  
Fittings, air compressor  
Fittings, pneumatic tool  
Malleable iron  
Packing, preformed  
Zinc-coated

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MILITARY INTERESTS:

Custodians:

Army - AT  
Navy – SH  
DLA - CC

Review activities:

Army – AR  
Navy - MC, OS, SA

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS  
DOT – FAA - ACO  
HSS - FEC  
USDA - AFS

Preparing activity:

DLA - CC

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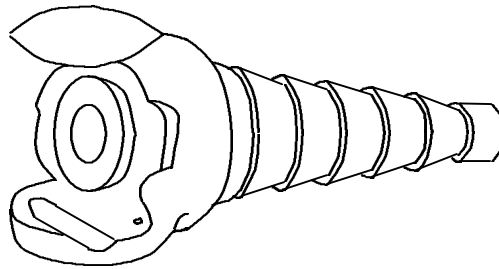


FIGURE 1. Hose end coupling, type I.

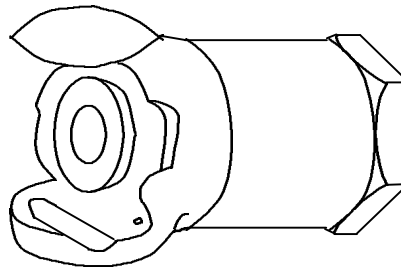


FIGURE 2. Female-thread coupling, type II.

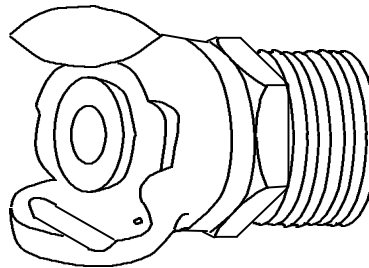


FIGURE 3. Male-thread coupling, type III.

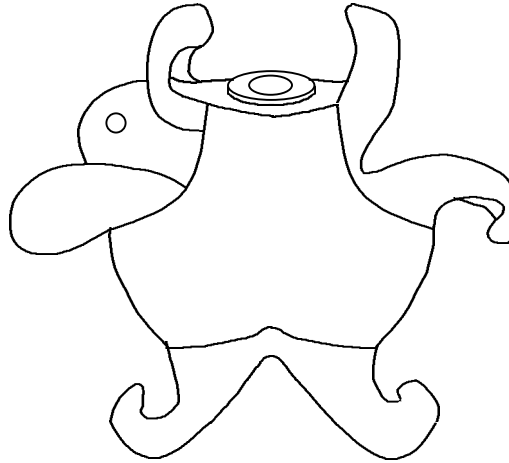


FIGURE 4. Three-way (wye) coupling, type IV.

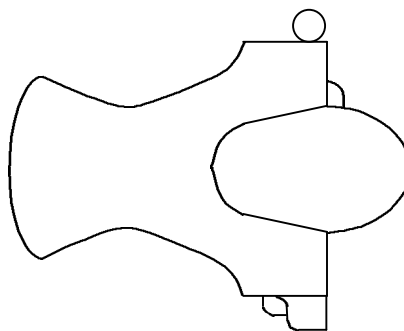


FIGURE 5. Dead-end (cap) coupling, type V.