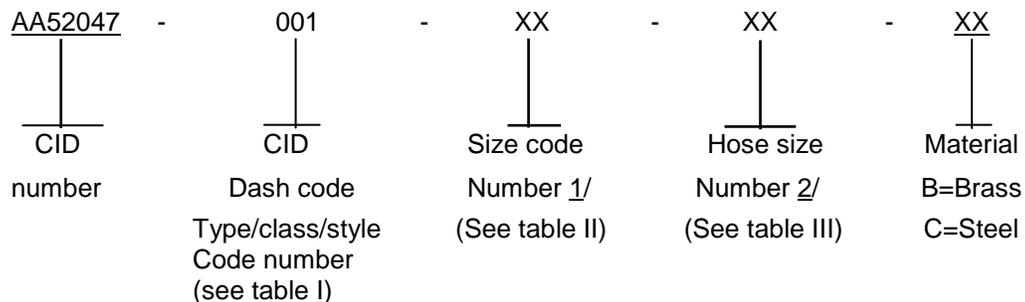


## COMMERCIAL ITEM DESCRIPTION

### COUPLING HALVES, QUICK-DISCONNECT

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 the general requirements for coupling halves, quick-disconnect. Coupling halves, quick-disconnect covered by this CID and are intended for commercial/industrial applications.
2. **CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN).** This CID uses a classification system which is included in the PIN as shown in the following example (see 7.1).



- 1/ The size code indicates the nominal pipe size for styles 1 and 2 and the hose ID for styles 3 and 4.
- 2/ For style 4 coupling halves, the hose OD must be identified. All other styles use 00.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data that may improve this document should be sent to: DLA Land and Maritime, ATTN: VAI, P.O. Box 3990, Columbus OH 43218-3990, or email [fluidflow@dla.mil](mailto:fluidflow@dla.mil). Since contact information can change you may want to verify the currency of the address information using the ASSIST Online database at <https://assist.dla.mil/>.

2.1 Classification. The coupling halves shall conform to the following types, classes and styles.

2.2 Type Code.

- Type I - Female quick disconnect half
- Type II - Male quick-disconnect half

2.3 Classes.

- Class A - Low capacity (0.250-inch size)
- Class C - High capacity (0.500-inch size)

2.4 Styles.

- Style 1 - Male threaded end
- Style 2 - Female threaded end
- Style 3 - Standard hose end
- Style 4 - Reusable hose end with hose locking sleeve

2.5 Example PIN:

AA59439-05-16-00B is a type I, class C, style 1, brass half used with a 1/2-inch pipe

TABLE I. Type, class and style code number.

Code number	Type	Class	Style
001	I	A	1
002	I	A	2
003	I	A	3
004	I	A	4
005	I	C	1
006	I	C	2
007	I	C	3
008	I	C	4
009	II	A	1
010	II	A	2
011	II	A	3
012	II	A	4
013	II	C	1
014	II	C	2
015	II	C	3
016	II	C	4

TABLE II. Applicable size code number for the different styles.

Code	Style 1	Style 2	Style 3	Style 4	Size (inches)	
04	A & C	A & C			1/8	0.125
06			A & C	A & C	3/16	0.187
08	A & C	A & C	A & C	A & C	1/4	0.250
10			A & C	A & C	5/16	0.313
12	A & C	A & C	A & C	A & C	3/8	0.375
16	C	C	C	C	1/2	0.500
20			C	C	5/8	0.625
24	C	C	C	C	3/4	0.750

TABLE III. Hose OD code number.

Code	Size (inches)		Code	Size (inches)		Code	Size (inches)	
01	1/32	0.031	17	17/32	0.531	33	1-1/32	1.031
02	1/16	0.062	18	9/16	0.562	34	1-1/16	1.062
03	3/32	0.094	19	19/32	0.593	35	1-3/32	1.093
04	1/8	0.125	20	5/8	0.625	36	1-1/8	1.125
05	5/32	0.157	21	21/32	0.656	37	1-5/32	1.156
06	3/16	0.188	22	11/16	0.688	38	1-3/16	1.188
07	7/32	0.218	23	23/32	0.718	39	1-7/32	1.218
08	1/4	0.250	24	3/4	0.750	40	1-1/4	1.250
09	9/32	0.281	25	25/32	0.781	41	1-9/32	1.281
10	5/16	0.313	26	13/16	0.813	42	1-5/16	1.313
11	11/32	0.344	27	27/32	0.843	43	1-11/32	1.343
12	3/8	0.375	28	7/8	0.875	44	1-3/8	1.375
13	13/32	0.406	29	29/32	0.906	45	1-13/32	1.343
14	7/16	0.437	30	15/16	0.937	46	1-7/16	1.437
15	15/32	0.468	31	31/32	0.968	47	1-15/32	1.468
16	1/2	0.500	32	1	1.000	48	1-1/2	1.500

3. SALIENT CHARACTERISTICS.

3.1 Interface and physical dimensions. Coupling halves, quick-disconnect supplied to this CID shall be as specified herein (see figure 1 through 7).

3.1.2 Design. Engagement of the coupling halves shall be accomplished by manually pushing the type II half into the type I socket until secure. Such engagement shall be done without tools and without manually rotating or manually retracting the type I actuating sleeve. It shall not be necessary to rotate the coupling halves with respect to each other in order to engage or disengage them. When engaged, the coupling halves shall be free to rotate with respect to each other under rated working air pressure.

3.1.3 Construction. Coupling halves shall consist of a body (including end fittings), actuating sleeve, shut-off valve, and locking mechanism. Threads for styles 1 and 2 shall be American Standard Pipe threads(NPT).

3.1.4 Materials. Material code B halves shall have actuating sleeves and bodies (including end fittings) made of brass. Material code C halves shall have actuating sleeves and bodies (including end fittings) made of steel. Coupling springs shall be made of corrosion resistant steel. Coupling valves and locking mechanism components shall be made of corrosion-resistant materials.

3.1.5 Metal surface. Wherever steel other than corrosion resistant steel is used in the coupling half, all surfaces shall be plated with nickel or zinc.

3.2. Type I half design. Halves shall be designed to properly engage type II halves of the same class and size. Styles 1 and 2 shall be similar to figures 1 and 2, respectively. Styles 3 and 4 shall be similar to figures 3 and 4, respectively; and shall be suitable for the ID hose specified. The style 4 locking sleeve shall be suitable for the OD hose specified.

3.2.1 Type II half design. Halves shall be designed to properly engage to type I halves and Class A to meet 0.250-inch size, and Class C to meet 0.500-inch size. Styles 1 and 2 shall be similar to figures 5 and 6, respectively. Styles 3 and 4 shall be similar to figure 6 and 7 respectively; and shall be suitable for the ID hose specified. The style 4 locking sleeve shall be suitable for the OD hose specified.

3.3 Performance. The coupling halves shall meet the performance requirements of this document. Type I halves must conform to table IV at 100 psi and 70°F (21°C) ambient temperature.

TABLE IV. Performance.

Class	Minimum flow CFM	Maximum pressure drop at specified minimum flow (psi)
A	10	2-1/2
C	35	2-1/2

3.3.1 Leakage. Type I halves shall not leak while engaged with or while disengaged from type II halves of the same class.

3.4 Structural rigidity.

3.4.1 Type I halves. While engaged with a type II half of the same class, the type I half shall withstand a crush load of 500 pounds applied uniformly to an area of the actuating sleeve surface not exceeding one square inch without permanent deformation or failure. It shall be capable of functioning after removal of the load. It shall not leak after removal of load.

3.4.2 Locking mechanism. The locking mechanism contained in the type I half shall withstand a tensile load of 500 pounds applied directly to an engaged type II half of the same class without releasing the type II half, or without deformation or failure of the type I half. The coupling shall not leak after removal of load.

3.5 Marking. Coupling halves, quick-disconnect supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN. (NOTE: The part number marked on the unit pack shall be the CID PIN.)

3.6 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.

3.7 Workmanship. Coupling halves, quick-disconnect shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

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

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 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.

5.2 Certification. Certification must be done with the procuring activity approval. The contractor shall certify that the product offered meets the salient characteristics of the description and conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same as the product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract

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

7. NOTES.

7.1 PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See section 2 for PIN format example.

7.2 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. As of the dating of this document, the U.S. Environmental Protection Agency (EPA) is focusing efforts on reducing 31 priority chemicals. The list of chemicals and additional information is available on their website <http://www.epa.gov/osw/hazard/wastemin/priority.htm>. Included in the EPA list of 31 priority chemicals are cadmium, lead, and mercury. Use of these materials should be minimized or eliminated unless needed to meet the requirements specified herein (see Section 3).

7.3 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these Coupling halves, quick-disconnect to DLA Land and Maritime under the (PMAT) evaluation program, CAGE code 58536 should be used.

7.4 Source of documents.

FEDERAL REGULATIONS

FAR – Federal Acquisition Regulations (FAR)

(Copies of these documents are available online at [www.acquisition.gov/comp/far/index.html](http://www.acquisition.gov/comp/far/index.html) or from the U.S. Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.)

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

- a. CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Packaging requirements.

7.6 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict acquisition to only the manufacturers shown.)

<u>MFR's CAGE</u>	<u>MFR's name and address</u>
14127	Foster manufacturing co. Inc. 2324 W Battlefield Rd Springfield, MO 65807-4098 <a href="mailto:aquigley@couplers.com">aquigley@couplers.com</a> (417) 881-6600
4VU52	Matkor Inc. 6524 Las Flores Dr Boca Raton, FI 33433-2365 <a href="mailto:mati@matkor.com">mati@matkor.com</a> (561) 483-9240
5WGX1	SAB LLC 525 Lincoln HWY STE 30 Fairview Heights, IL 62208-2142 <a href="mailto:sablco@yahoo.com">sablco@yahoo.com</a> (618) 541-0263

7.8 Government users. To acquire information on obtaining these coupling halves, quick-disconnect from the Government inventory system, contact DLA Land and Maritime, ATTN DLA Land and Maritime Call Center (-NAB), P.O. Box 3990, Columbus, OH 43218-3990 or telephone (614) 692-2271 or (614) 692-3191.

7.8 Legacy. This commercial item description is a replacement for MIL-C-4109 for all federal agencies (MIL-C-4109 is canceled as of 16 December 1999 and copies of these documents are available online at <http://quicksearch.dla.mil/> or from the U.S. Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.)

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

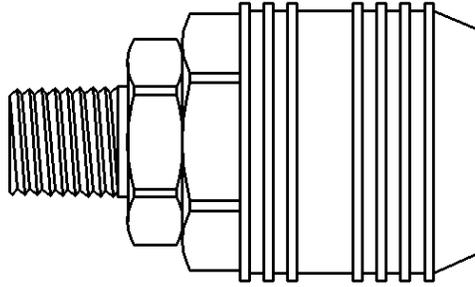


FIGURE 1. Typical type I, style 1 coupling half.

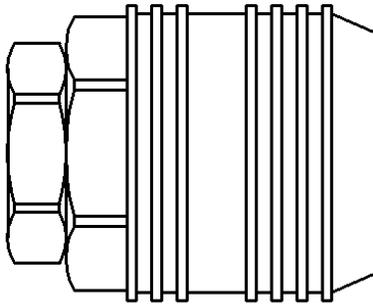


FIGURE 2. Typical type I, style 2 coupling half.

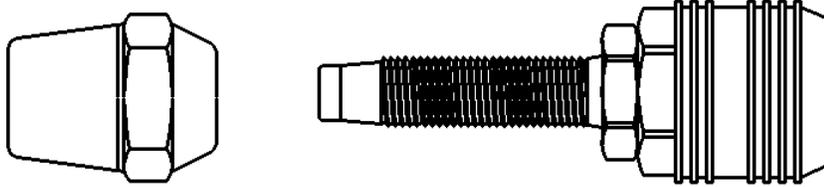


FIGURE 3. Typical type I, style 4 coupling half with hose locking sleeve.

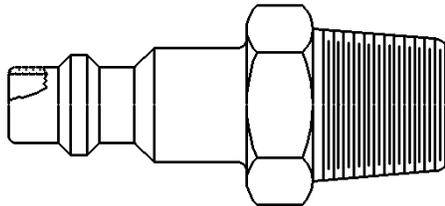


FIGURE 4. Typical type II, style 1 coupling half.

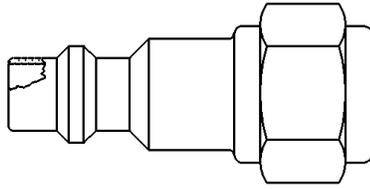


FIGURE 5. Typical type II, style 2 coupling half.

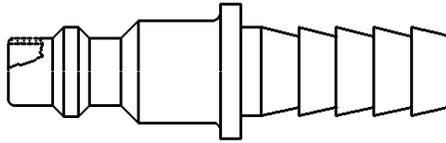


FIGURE 6. Typical type II, style 3 coupling half.

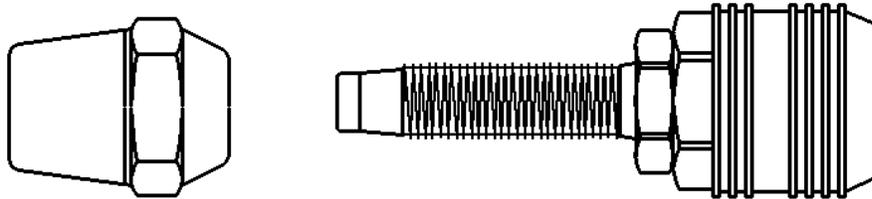


FIGURE 7. Typical type II, style 4 coupling half with hose locking sleeve.

MILITARY INTERESTS

Custodians:

Army – CR4  
Navy - AS  
Air Force - 99  
DLA - CC

Review activities:

Army-AR  
Navy – SA, YD  
Air Force - 71

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

Preparing activity:  
DLA - CC

Project 4730 - 2014 - 006

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 Online database at <https://assist.dla.mil/>.