INCH-POUND

MIL-DTL-52404C
5 October 2010
SUPERSEDING
MIL-C-52404B
17 August 1977

DETAIL SPECIFICATION

CONNECTIONS: HOSE, FIRE AND WATER

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers hose and pipe connections for use in firefighting and water supply systems.

1.2 Classification. The connections will be of the following types, classes, and sizes as specified (see 6.2):

Type XIII - Siamese connection, pipe-to-hose (Drawing 13218E0469)
Size :
1-1/2 inch external (NPT) by 1-1/2 by 1-1/2 inch internal (NPSH)

Type XIV - Siamese connection, fire hose (Drawing 13218E0469)
Class A - Plain
Size :
2-1/2 inch internal (NH) by 2-1/2 by 2-1/2 inch external (NH)
Class B - Gated - internal to 2-outlet external
Size:
2-1/2 inch internal (NH) by 1-1/2 by 1-1/2 inch external (NH)
2-1/2 inch internal (NH) by 1-1/2 by 1-1/2 inch external (NPSH)
2-1/2 inch internal (NH) by 2-1/2 by 2-1/2 inch external (NH)
4-1/2 inch internal (NH) by 2-1/2 by 2-1/2 inch external (NH)
Class D - Gated - internal swivel to 3-outlet external
Size:
2-1/2 inch internal swivel (NH) by 1-1/2 by 1-1/2 by l-1/2 inch external (NH)
Class E - Gated - External to 2-outlet internal swivel
Size:
2-1/2 inch external (NH) by 2-1/2 by 2-1/2 inch internal swivel (NH)

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Philadelphia, ATTN: DSCP-NASA, 700 Robbins Avenue, Philadelphia, PA 19111-5096 or email to dscpg&ispecomments@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.daps.dla.mil.

Type XV - Reducer, hose (Drawing 13218E0470)
- Class A -Double internal.
  - Size:
    - 2-1/2 inch (NH) by 1-1/2 inch (NPSH)
    - 2-1/2 inch (NH) by 1-l/2 inch (NH)
    - 4-1/2 inch (NH) by 2-1/2 inch (NH)
    - 4-1/2 inch swivel (NH) by 5 inch swivel (NH)
    - 4-1/2 inch swivel (NH) by 6 inch swivel (NH)
- Class B - Double external
  - Size:
    - 2-l/2 inch (NH) by 1-1/2 inch (NPSH)
    - 2-1/2 inch (NH) by l-1/2 inch (NH)
- Class C - Internal to external
  - Size:
    - 1-1/2 inch (NPSH) by 3/4 inch chemical (NH)
    - 1-1/2 inch (NH) by 3/4 inch chemical (NH)
    - 1-1/2 inch (NPSH) by 1 inch chemical (NH)
    - 1-1/2 inch (NH) by 1 inch chemical (NH)
    - 2-1/2 inch (NH) by 1-1/2 inch (NPSH)
    - 2-1/2 inch (NH) by 1-1/2 inch (NH)
    - 2-1/2 inch (NH) by 2-inch (NPSH)
- Class D - External to internal
  - Size:
    - 1 inch internal chemical (NH) by 3/4 inch garden (external)
    - 2-1/2 inch internal (NH) by 1-1/2 inch external (NPSH)
    - 2-1/2 inch internal (NH) by 1-1/2 inch external (NH)
    - 5 inch internal (NH) by 4-1/2 inch external (NH)
    - 6 inch internal (NH) by 4-1/2 inch external (NH)

Type XVI - Adapter, straight, pipe-to-hose (Drawing 13218E0479)
- Class A - Internal (NPSH) to external (NH)
  - Size:
    - 1 inch by 3/4 inch chemical
    - 1 inch by 1 inch chemical
    - 1-1/2 inch by 1-1/2 inch
    - 2 inch by 2-1/2 inch
- Class B - External (NPT) to internal (NPSH).
  - Size:
    - 1 inch by 1 inch
    - 1-1/2 inch by 1-1/2 inch
    - 1-1/2 inch by 2 inch
    - 2 inch by 1-1/2 inch
    - 2 inch by 2 inch
- Class C - External (NPT) to external (NPSH)
  - Size:
    - 3/4 inch by 3/4 inch
    - 1 inch by 1 inch
    - 1-1/4 inch by 1-1/4 inch
    - 1-1/2 inch by 1-1/4 inch
    - 1-1/2 inch by 1-1/2 inch
    - 2 inch by 1-1/2 inch
    - 2 inch by 2 inch

Class D - External (NPT) to external (NH)
Size:
1/2 inch by 3/4 inch garden
1/2 inch. by 3/4 inch chemical
1/2 inch by 1 inch chemical
1-1/2 inch by 1-1/2 inch
2-1/2 inch by 2-1/2 inch
2 inch by 1-1/2 inch
3 inch by 2-1/2 inch
3-1/2 inch by 2-1/2 inch
4 inch by 4-1/2 inch
Class E - External (NPSH) to internal (NH)
Size:
1-1/2 inch by 1-1/ 2 inch
2 inch by 2-1/2 inch
Class F - External (grooved) to internal (NH)
Size:
6 inch
Class G - External (NPT) to internal (NH)
Size:
2-1/2 inch by 2-1/2 inch
3 inch by 2-1/2 inch
Class H - Internal (NPT) to external (NH)
Size:
3 inch by 2-1/2 inch

Type XVII - Coupling, Hose (Drawing 13218E0471)
Class A - Double internal, plain
Size:
1-1/2 inch (NPSH) by 1-1/2 inch (NPSH)
1-1/2 inch (NH) by 1-1/2 inch (NH)
2-1/2 inch (NH) by 2-1/2 inch (NH)
4-1/2 inch (NH) by 442 inch (NH)
5 inch (NH) by 5 inch (NH)
6 inch (NH) by 6 inch (NH)
Class B - Internal to external, gated (see 6.7)
Size:
l-l/2 inch (NPSH) by l-1/2 inch (NPSH)
2-1/2 inch (NH) by 2-1/2-inch (NH)

Type XVIII - Elbow, hose: 45-degree swivel type, internal to external (Drawing l3218E0472)
Size:
2-1/2 inch (NH) by 2-1/2 inch (NH)

Type XIX - Nipple, hose: double external (Drawing 13218E0473)
Size:
1-1/2 inch (NPSH) by 1-1/2 inch (NPSH)
1-1/2 inch (NH) by 1-1/2 inch (NH)
2-1/2 inch (NH) by 2-1/2 inch (NH)

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 standard 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 documents cited in section 3 and section 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.

FEDERAL SPECIFICATIONS

GGG-W-665 - Wrench, Spanner

FEDERAL STANDARDS

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

COMMERCIAL ITEM DESCRIPTIONS

A-A-52598 - Couplings, Clamp, Pipe; with Bolts and Synthetic-Rubbers for Grooved-End Pipe

MILITARY SPECIFICATIONS

MIL-A-8625 - Anodic Coatings, for Aluminum and Aluminum Alloys

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

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications 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.

CECOM LR CENTER

Drawing 13218E0469 - Siamese Connections
Drawing 13218E0470 - Reducer, Hose
Drawing 13218E0472 - Elbow, Hose
Drawing 13218E0473 - Nipple, Hose
Drawing 13218E0479 - Adapter, Straight, Pipe to Hose

(Copies of these drawings are available from the CECOM LR Center, 10115 Gridley Rd, Suite 228, Fort Belvoir, VA 22060.)

2.3 Non-Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY FOR QUALITY (ASQ)

ASQ Z1.4 - Sampling Procedures and Tables for Inspection by Attributes

(Copies of this document are available from www.asq.org or the American Society for Quality, 611 East Wisconsin Avenue, Milwaukee, WI 53202.)

ASTM INTERNATIONAL

ASTM A47/47M - Standard Specification for Ferritic Malleable Iron Castings
ASTM B16/B16M - Standard Specification for Free-Cutting Brass Rod, Bar, and Shapes for Use in Screw Machines
ASTM B26/B26M - Standard Specification for Aluminum Alloy Sand Castings
ASTM B124/B124M - Standard Specification for Copper and Copper-Alloy Forging Rod, Bar, and Shapes
ASTM B584 - Standard Specification for Copper Alloy Sand Castings for General Applications

(Copies of this document are available from www.astm.org or ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 1963 - Standard for Fire Hose Connections

(Copies of this document are available from www.nfpa.org or the National Fine Protection Association, 1 Battery March Park, Quincy, MA 02269-9101.)

SAE

SAE-AMS-QQ-P-416 - Plating, Cadmium (Electrodeposited)

(Copies of this document are available from www.sae.org or from SAE International, 400 Commonwealth Drive), Warrendale, PA 15096-0001.)

UNDERWRITERS LABORATORIES , INC.

Fire Protection Equipment List

(Copies of this document are available from www.ul.com or the Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, 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 Description. The connections shall be of heavy cast or forged construction and shall be fabricated of aluminum, brass, or malleable iron, as specified (see 6.2). The waterway openings shall be not less than 90 percent of the nominal hose or pipe ID. Lugs shall be of the rocker type and shall fit spanner wrenches conforming to GGG-W-665, Type IV. The swivels shall be permanently connected to the body in a manner to permit free rotation of the swivel and to prevent leakage. Retaining rings or similar components shall be of noncorrosive, wear-resistant metal. The connections shall withstand a working pressure of 250 psig without permanent deformation or damage.

3.2 First article (preproduction model). The contractor shall furnish one or more connections for examination and testing within the time frame specified (see 6.2), to prove prior to starting production that his production methods and choice of design detail will produce connections that comply with the

requirements of this specification. Examination and tests shall be as specified in Section 4 and shall be subject to surveillance and approval by the Government (see 6.3).

3.3 Material. Material shall be as specified herein. When specified (see 6.2), items which are listed in the current Fire Protection Equipment List of the Underwriters Laboratories, Inc. shall be considered as meeting the material requirements of this specification. Materials not specified shall be selected by the contractor and shall be subject to all provisions of this specification (see 6.8). It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.3.1 Malleable cast iron. Malleable iron castings shall conform to ASTM A47/A47M, grade optional.

3.3.2 Cast aluminum. Aluminum castings shall conform to ASTM B26/B26M, Alloy 355.0, Condition T6 or Alloy 356.0, Condition T6 or Alloy 535.0.

3.3.2.1 Extruded aluminum. Extruded aluminum shall conform to Alloy 6061-T6 or 6262-T6.

3.3.2.2 Forged aluminum. Forged aluminum shall conform to Alloy 6262-T6.

3.3.2.3 Anodic coatings. All aluminum parts shall be protected by a hard anodic coating conforming to Type III, Class 1 of MIL-A-8625. All surfaces normally painted shall be painted in accordance with the manufacturer's standard practice.

3.3.3 Brass.

3.3.3.1 Brass bars. Brass bars shall conform to ASTM B16/B16M.

3.3.3.2 Drop forged brass. Drop forged brass shall conform to ASTM B124/B124M, Copper Alloy UNS No. C37700.

3.3.3.3 Cast brass. Brass castings shall conform to ASTM B584, Copper Alloy UNS No. C83600 or C84400.

3.4 Rubber gaskets. Gaskets conforming to NFPA 1963 shall be furnished with each connection having internal threads.

3.5 Threads. All threads shall conform to FED-STD-H28.

3.6 Performance. The connections shall show no evidence of distortion or damage that will affect the serviceability of the connections when subjected to a hydrostatic test pressure of 1,000 psig.

3.7 Plating. All iron surfaces, including threaded and sliding surfaces, shall be cadmium plated in accordance with SAE-AMS-QQ-P-416, Type I, Class 1.

3.7.1 Unless otherwise specified, all (NH) National Hose Connection shall be chromium plated.

3.8 Identification marking, The connections shall be identified in accordance with the manufacturers standard practices.

3.9 Type XIII, Siamese connection, pipe to hose. Type XIII connection shall have one external threaded end and two internal threaded swivel ends with rocker lugs and shall be similar to Drawing 13218E0469 and Figure 1.

3.10 Type XIV, Siamese connection, fire hose.

3.10.1 Class A, plain. The Class A, plain Siamese connection shall have one internal threaded swivel end and two external threaded ends, and shall be similar to Drawing 13218E0469 and Figure 2.

3.10.2 Classes B, C, D, and E, gated-Siamese connections. The gated-Siamese connections shall be gated with 1/4-turn, long-handled, shut-off valves of the full-flow, ball or cylindrical, floating-gland type. The cylindrical floating gland type shall operate through bypasses in the body of the cylinder. The valves shall be operable and leakproof under a pressure of 250 psi, and shall be similar to Drawing l3218E0469 and Figures 3, 5 and 6.

3.11 Type XV, reducer hose.

3.11.1 Class A, double internal. The Class A reducer shall be of the double swivel type similar to Drawing 13218E0470 and Figure 7. When specified (see 6.2), the ends shall be equipped with long handles.

3.11.2 Class B, double external. The Class B reducer shall be the double-external type consisting of a center piece and two external threaded ends similar to Figure 8 and to Drawing 13218E0470.

3.11.3 Class C, internal to external. The Class C reducer shall be of one-piece construction with an internal threaded end and an external threaded end. The coupling shall be similar to Figure 9 and to Drawing 13218E0470.

3.11.4 Class D, external to internal. The Class D reducer shall be of two types. The 1 inch by ¾ inch size shall be one-piece construction similar to Figure 9. The 2-1/2 inch by l-1/2 inch and the 6 inch by 4-1/2 inch size shall consist of an external end and an internally threaded swivel end equipped with lugs and shall be similar to Figure 10 and to Drawing 13218E0470. When specified (see 6.2), the ends shall have long arm handles.

3.12 Type XVI, adapter, straight, pipe to hose.

3.12.1 Class A; internal to external. Unless otherwise specified (see 6.2), the Type XVI, Class A adapter shall consist of an internal threaded swivel end and an external threaded end similar to figure 10. When specified (see 6.2), the Type XVI, Class A adapter shall be a rigid one-piece construction without swivel.

3.12.2 Class B, external to internal. The Class B adapter shall be of one-piece construction, shall consist of an external threaded end and an internal threaded end, and shall be similar to Figure 11. A hexagonal-shaped wrenching feature shall be provided.

3.12.3 Class C, external to external. The Class C adapter shall be of one-piece construction, shall have an external thread on each end, and shall be similar to Figure 12. The center portion shall be provided with a hexagon-shaped wrenching feature.

3.12.4 Class D, external to external. The Class D adapter shall be of one-piece construction and shall have an external thread on each end. The center piece shall be equipped with rocker-type lugs. The adapters shall be similar to Figure 13.

3.12.5 Class E, external to internal. Unless otherwise specified (see 6.2), the Class E adapter shall consist of an external threaded end and an internal threaded swivel end equipped with lugs. When specified (see 6.2), the external threaded end shall be provided with a cap attached to the main body by a matching metal chain. When specified (see 6.2), the adapter shall be rigid, one-piece construction without swivel. The adapters shall be similar to Figure 14.

3.12.6 Class F, external to internal. The Class F adapter shall be of one-piece construction with one 6 inch internal threaded end equipped with lugs and one 6 inch external grooved end. The 6 inch grooved end shall conform to the dimensions and tolerances specified in A-A-52598. The grooved adapter shall be similar to Figure 15.

3.12.7 Class G, external to internal. The Class G adapter shall be of one-piece construction and shall have one external and one internal threaded end. The Internal threaded end shall be equipped with lugs. The adapter shall be similar to Figure 16.

3.12.8 Class H, internal to external. The Class H adapter shall be of one-piece construction and shall have one internal and one external threaded end. The internal threaded end shall be equipped with lugs and shall be similar to Figure 16.

3.13 Type XVII, coupling, hose. The couplings shall be similar to Drawing 13218E0471 and Figures 17 and 18.

3.13.1 Class A, double internal, plain. The Class A coupling shall be of the double-swivel type consisting of a center piece and two internal threaded swivel ends equipped with lugs. The 4-1/2 inch size shall have long arm handles.

3.13.2 Class B, internal to external, gated. The Class B coupling shall consist of a centerpiece in which is located a valve with a handle, an internal threaded swivel end equipped with lugs, and an external threaded end. The valve shall be of the sliding-gate type with a full-size waterway. The valves shall be operable and leakproof under a pressure of 250 psi.

3.14 Type XVIII, elbow, hose, 45-degree swivel type, internal to external. The hose elbow connection shall consist of a 45-degree elbow with one external threaded end and one internal threaded swivel end equipped with lugs. The elbow shall be similar to Figure 19 and to Drawing 13218E0472.

3.15 Type XIX, nipple hose: double external. The hose nipple shall be of one-piece construction and shall consist of two external threaded ends on a center section equipped with lugs. The nipple shall be similar to Figure 20 and to Drawing 13218E0473.

3.16 Workmanship. All parts, components, and assemblies of the connections including castings, forgings, and machined surfaces shall be clean and free from sand, dirt, fins, pits, sprues, scale, or other harmful extraneous material. All edges shall be rounded or beveled, with no sharp, ragged, or rough edges.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

(a) Preproduction inspection (see 4.2).
(b) Conformance inspection (see 4.3).

4.2 Preproduction inspection.

4.2.1 Examination. The preproduction connections shall be examined as specified in 4.4.1. Presence of one or more defects shall be cause for rejection.

4.2.2 Tests. The preproduction connections shall be tested as specified in 4.4.2. Failure of any test shall be cause for rejection.

4.3 Conformance inspection.

4.3.1 Lot . For the purpose of inspection, a lot shall consist of all connections of the same type, class and size offered for delivery at one time.

4.3.2 Sampling. Sampling for examination and tests shall be in accordance with ASQ Z1.4. Unless otherwise specified, the Acceptable Quality Limits (AQLs) listed in this section shall be used to establish the sample sizes, however, the acceptance number shall be zero.

4.3.3 Examination. Samples selected in accordance with 4.3.2 shall be examined as specified in 4.4.1. AQL shall be 2.5 percent defective for major defects, and 4.0 percent defective for minor defects, Inspection Level II.

4.3.4 Tests. Samples selected in accordance with 4.3.2 shall be tested as specified in 4.4.2. AQL shall be 2.5 percent defective, Inspection Level S-2.

4.4 Inspection procedure.

4.4.1 Examination. The connections shall be examined as specified in 4.3.3 for the applicable characteristics listed in Table I.

Table I. Examination schedule.

Number	Characteristic	Requirement Paragraph
Major		
101	Dimensions that affect form, fit, or function.	3.1
102	Material not as specified.	3.3
103	Malleable cast iron not as specified.	3.3.1
104	Cast aluminum not as specified.	3.3.2
105	Brass bars not as specified.	3.3.3.1
106	Drop forged brass not as specified.	3.3.3.2
107	Cast brass not as specified.	3.3.3.3
108	Rubber gaskets not as specified.	3.4
109	Threads not as specified.	3.5
110	Plating not as specified.	3.7, 3.7.1
111	Type XIII connection not as specified.	3.9
112	Type XIV, Class A connection not as specified.	3.10.1
113	Type XIV, B, C, B and E connections not as specified.	3.10.2
114	Type XV, Class A, reducer hose not as specified.	3.11.1
115	Type XV, Class B, reducer hose not as specified.	3.11.2
116	Type XV, Class C, reducer hose not as specified.	3.11.3
117	Type XV, Class D, reducer hose not as specified.	3.11.4
118	Type XVI, Class A, adapter, straight, pipe to hose not as specified.	3.12.1
119	Type XVI, Class B, adapter, straight pipe to hose not as specified.	3.12.2
120	Type XVI, Class C, adapter, straight pipe to hose not as specified.	3.12.3
121	Type XVI, Class D, adapter, straight pipe to hose not as specified.	3.12.4
122	Type XVI, Class E, adapter, straight pipe to hose not as specified.	3.12.5
123	Type XVI, Class F, adapter, straight pipe to hose not as specified.	3.12.6
124	Type XVI, Class G, adapter, straight pipe to hose not as specified.	3.12.7
125	Type XVI, Class H, adapter, straight pipe to hose not as specified.	3.12.8
126	Type XVII, Class A, coupling hose not as specified.	3.13.1
127	Type XVII, Class B, coupling hose not as specified.	3.13.2

Table I. Examination Schedule (Cont'd)

Number	Characteristic	Requirement Paragraph
Major		
128	Type XVIII, elbow hose not as specified.	3.14
129	Type XIX, nipple hose not as specified	3.15
Minor		
201	Identification marking of the connections not as specified.	3.8
202	Workmanship not as specified.	3.16

4.4.2 Tests. Connections not approved and listed in the Fire Protection Equipment List of the Underwriters Laboratories, Inc. shall be tested as specified herein in the sequence listed.

4.4.2.1 Operating pressure test. Gated type connections shall be subjected to a pressure of 250 psig and the valve operated. Failure of the valve to operate or any leakage around the valve or valve stem packing shall constitute failure of this test.

4.4.2.2 Hydrostatic-pressure test. Subject the connection to a hydrostatic pressure of 1,000 psig for not less than 1 minute. While under this pressure, examine the connections for leakage and distortion. Any leakage or distortion of the connections shall constitute failure of this test. For the gated or valved type, a leakage rate in excess of 10 drops per minute or any distortion shall constitute failure of this test.

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 commands. 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 connections are intended for use in connecting hose and pipe used in firefighting and water supply equipment.

6.2 Ordering data. Procurement documents should specify the following:

(a) Title, number, and date of this specification.
(b) Types, classes, and sizes required (see 1.2).
(c) Whether aluminum, brass, or malleable iron connections are required (see 3.1).
(d) Time frame required for submission of the preproduction model, and number of models required (see 3.2).
(e) When the UL List should be considered as meeting the material requirements (see 3.3).
(f) Plating not required (see 3.7.1).
(g) When ends should be equipped with long handles (see 3.11.1 and 3.11.4).
(h) Whether Type XVI, Class A adapter should be other than as specified (see 3.12.1).
(i) When the Type XVI, Class A adapters should be rigid one-piece construction without swivel (see 3.12.1).
(j) Whether Type XVI, Class E adapters should have threads other than as specified (see 3.12.5).
(k) When Type XVI, Class E adapters should be provided with a metal chain and threaded cap (see 3.12.5).
(l) When Type XVI, Class E adapters should be a rigid one-piece construction without swivel (see 3.12.5).
(m) Packaging requirements (see 5.1).

6.3 Preproduction model. Any changes or deviations of production connections from the approved preproduction model during production will be subject to the approval of the contracting officer. Approval of the preproduction model will not relieve the contractor of his obligation to furnish connections conforming to this specification.

6.4 Figures and drawing illustrations . The figures and drawing illustrations show types of connections which have been found acceptable; however, they are included for illustration only and are not intended to preclude the furnishing of other connections which conform to this specification.

6.5 Discontinued items.

Type XIV, Class C, 5 inch external (NH) by 2-1/2 by 2-1/2 by 2-1/2 inch internal (NH) outlets.
Type XIV, Class D, 3-1/2 inch internal swivel (NH) by 2-1/2 by 2-1/2 by 2-1/2 inch external (NH)
Type XIV, Class E, 3-1/2 inch external (NH) by 2-1/2 by 2-1/2 internal swivel (NH)

Type XIV, Class E, 8 inch external (NH) by 5 by 5 inch internal swivel (NH)
Type XV, Class A, 3 inch (NH) by 2-1/2 inch (NH)
Type XV, Class A, 4-1/2 inch (NH) by 4 inch (NH)
Type XV, Class C, 3-1/2 inch (NH) by 2-1/2 inch (NH)
Type XV, Class C, 4-1/2 inch (NH) by 3-1/2 inch (NH)
Type XVI, Class G, 3 inch by 3 inch
Type XVI, Class H, 3 inch by 3 inch
Type XVII, Class B, 2-1/2 inch by 2-1/2 inch
Type XVII, Class C, 1-1/2 inch (NH) by 1-1/2 inch (NH)

6.6 Added item.

Type XV, Class A, 4-1/2 inch swivel (NH) by 6 inch swivel (NH)
Type XV, Class D, 6 inch internal (NH) by 4-1/2 inch external (NH)
Type XVI, Class G, 3 inch by 2-1/2 inch
Type XVI, Class H, 3 inch by 2-1/2 inch
Type XVII, Class A, 6 inch (NH) by 6 inch (NH)

6.7 Classification change. Type XVII Class B connections have been discontinued. Type XVII Class C connections have been reclassified as Type XVII Class B.

6.8 Subject term (key word) listing.

Elbow
External threaded
Gated
Internal threaded
Nipple
Siamese

6.9 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. Type XIII

Figure 2, Type XIV, Class A

Figure 3. Type XIV, Class B

Figure 4. Type XIV, Class C

Figure 5, Type XIV, Class D

Figure 6. Type XIV, Class E

Figure 7. Type XV, Class A

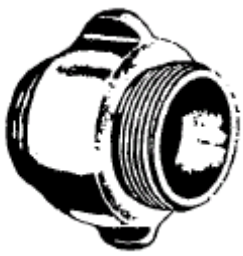

Figure 8. Type XV., Class B

Figure 9. Type XV, Class C
Type XV, Class D
One - Piece Construction

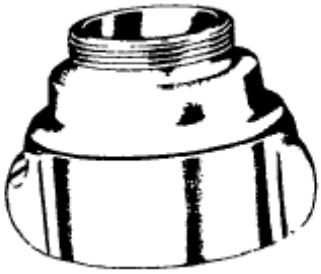

Figure 10. Type XV, Class D, Swivel
Type XVI, Class A

Figure 11. Type XVI, Class B

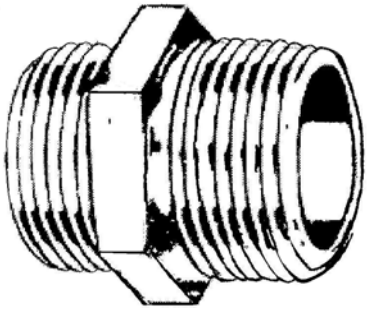

Figure 12. Type XVI, Class C

Figure 13, Type XVI, Class D

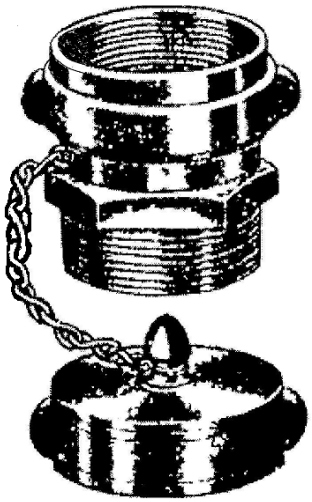

Figure 14. Type XVI, Class E

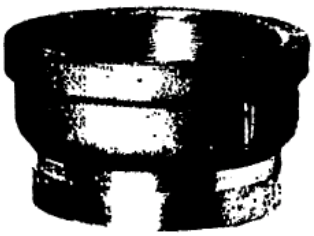

Figure 15, Type XVI, Class F

Figure 16. Type XVI, Class G
Type XVI, Class H
One - Piece Construction

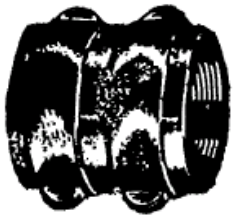

Figure 17, Type XVII, Class A

Figure 18. Type XVII, Class B

Figure 19. Type XVIII

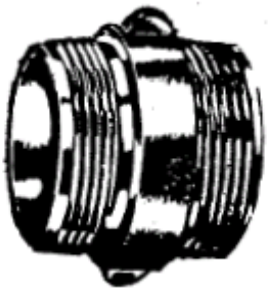

Figure 20. Type XIX

Custodians:
Army – AV
Navy – YD
Air Force – 99

Reviewer activity:
Air Force – 84

Preparing activity:
DLA - IS

(Project 4210-2010-001)

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.daps.dla.mil.