

(INCH-POUND)
A-A-2622A
February 17, 1998
SUPERSEDING
A-A-2622
February 20, 1990

COMMERCIAL ITEM DESCRIPTION

ADAPTERS, PIPE TO HOSE, STRAIGHT OR REDUCING

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

1. **SCOPE.** This commercial item description covers either straight or reducing adapters, to connect hose-threaded ends to pipe-threaded ends. Adapters covered by this commercial item description are intended for applications involving air, oil, gas, and water. They are to be used in connecting units having one type of thread to units having another type of thread.

2. SALIENT CHARACTERISTICS.

2.1 Adapters. Adapters shall be of the type of thread and size specified, one end male and the other end female. They shall be of heavy cast or forged construction and shall be fabricated of aluminum, brass, bronze, or malleable iron, as specified. The adapters shall be of the 125-pound class, conforming to the pressure-temperature rating specified in table 1.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may be improve this document should be sent to: Commanding Officer (Code 15E2), Naval Construction Battalion Center, 1000 23rd Avenue, Port Hueneme, CA 93043-4301.

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TABLE I. Pressure-temperature rating.

Temperature degree F	Pressure psi
-2- to 150	200
150 to 200	190
200 to 250	180
250 to 300	165
300 to 350	150
350 to 400	125

2.2 Threads. Thread sizes, dimensions, and tolerances shall conform to FED-STD-H28 or NFPA 1963 as specified. Tolerances on all dimensions except threads shall be ± 0.03125 inch unless otherwise specified.

2.3 Surfaces. All parts of the adapters 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. The finish on contact and bearing surfaces shall be 125 microinches (root-mean-square) or less. All iron surfaces, including threaded surfaces, shall be corrosion/rust resistant. 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.

2.4 Gaskets. Rubber gaskets conforming to NFPA NO. 1963 shall be furnished with each connection that would require one to achieve a proper seal.

3. REGULATORY REQUIREMENTS.

3.1 Materials. Adapter materials shall conform to ASTM standards:

- a. Malleable iron castings shall conform to ASTM A 47, grade optional.
- b. Aluminum castings shall conform to ASTM B 26, alloy 355.0, condition T6 or alloy 356.0, condition T6 or alloy 535.0.
- c. Extruded aluminum shall conform to ASTM B 221, alloy 6061, condition T6 or alloy 6262, condition T6.
- d. Forged aluminum shall conform to ASTM B 211, alloy 6262, condition T6.
- e. Brass bars shall conform to ASTM B 16.

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- f. Drop-forged brass shall conform to ASTM B 124, alloy 377.
- g. Brass castings shall conform to ASTM B 584, alloy 836 or 844.
- h. Bronze castings shall conform to ASTM B 62.

3.2 Recovered 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.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Product Conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices and be the same product offered for sale in the commercial market.. The Government reserves the right to require proof of such conformance.

4.2 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest version of ASTM SI-10 (IEEE/ASTM SI-10), and all other requirements of this commercial item description including form, fit, and function are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

4.3 Testing

4.3.1 Porosity test. The adapter shall be placed under water and subjected to an air pressure of 15 psi for not less than 1 minute. While underwater, the air pressure shall be increased to 60 psi and held for 3 minutes. No visible leakage of air shall occur in either instance.

4.3.2 Hydrostatic pressure test. The adapter shall be subjected to a 1-minute hydrostatic test pressure at 50 psi. The pressure shall then be increased to 250 psi for a period of 3 minutes. No visible leakage shall occur in either instance. Adapter testing shall be at the discretion of the contracting officer and will be performed when specified.

5. PACKAGING

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

6. NOTES.

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6.1 Intended use. Adapters are used to connect units having one type of thread to units having another type of thread.

6.2 Ordering Data. Acquisition documents should specify the following:

- a. Title, number and date of this document.
- b. Nominal pipe or hose size, types of threads (pipe, hose, etc.), male or female threads, and kind of material required.
- c. When different tolerances on dimensions are required.
- d. When porosity and hydrostatic pressure tests are required.

FED-STD-H28 and MIL-A-8625 are available from the Defense Automated Printing Services, Attn: DoDSSP, Bldg 4D, 700 Robbins Avenue, Philadelphia, PA 16111-5094.

ASTM A 47, ASTM B 16, ASTM B 26, ASTM B 62, ASTM B 124, ASTM B 211, ASTM B 221, and ASTM B 584 are available from ASTM, 100 Barr Harbor Dr., W. Conshocken, PA 19428-2959.

NFPA NO. 1963 is available from the National Fire Protection Association, 60 Batterymarch Park, Quincy, MA 02269.

IEEE documents are available from the Institute of Electrical and Electronics Engineers, IEEE Service Center, 445 Hoes Lane, P. O. Box 1331, Piscataway, NJ 08855-1331.

MILITARY INTERESTS:

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CIVIL AGENCY COORDINATING ACTIVITIES:

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Preparing Activity:

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