

INCH-POUND

A-A-55535
30 SEP 1998
SUPERSEDING
MIL-R-11521G
29 October 1993

COMMERCIAL ITEM DESCRIPTION

RINGS, EXPANSION, HOSE, BRASS

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

1. **SCOPE.** This CID covers the general requirements for rings, expansion, hose, brass. Expansion rings covered in this CID are intended for commercial/industrial applications. Typically the rings are used to secure hose and couplings together.
2. **CLASSIFICATION.** The expansion rings shall conform to the following dimensions, tolerances, and size.
 - 2.1 Dimensions and tolerances. The outside diameter, length, and wall thickness shall be as specified in table 1. The ends of the rings shall be perpendicular to the centerline within ± 0.016 inch.
 - 2.2 Size. The nominal hose size and length of the rings shall be as specified in table 1.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: Defense Supply Center Columbus, ATTN.: DSCC-VAI, Columbus, Ohio 43216-5000.

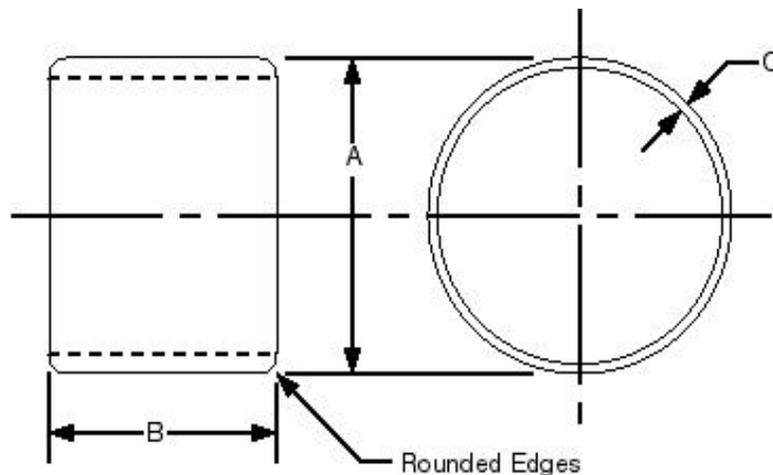
FSC 4730

Table I. Sizes and dimensions.

Nominal hose size	Ring outside diameter (A)	Ring length +1/32, -0 (B)	Wall thickness (C)
3/4	0.750 ± 0.003	3/4, 1-1/4, 1-3/8	0.049 ± .004
1	1.000 ± 0.003	7/8, 1, 1-1/4	0.049 ± .004
1-1/2	1.500 ± 0.003	3/4, 1-1/4, 1-3/8	0.049 ± .004
2	2.000 ± 0.003	1, 1-3/8	0.049 ± .004
2-1/2	2.500 ± 0.004	1-1/4, 1-1/2	0.065 ± .006
3	3.000 ± 0.004	1-7/8	0.065 ± .006
4	4.000 ± 0.005	2	0.083 ± .006

Note:

- All dimensions are in inches; see figure 1
- The letters (A), (B), and (C) in column headings of table I refer to the corresponding letters on figure 1.

Figure 1. Rings, Expansion, Hose, Brass

3. SALIENT CHARACTERISTICS.

3.1 Material. The rings shall be soft-annealed seamless brass tube conforming to ASTM B 135, (Seamless Brass Tube) Copper Alloy UNS No. 023000, Temper 06.

3.1.1 Mechanical properties.

3.1.2 Expansion. When tested as specified in ASTM B 135, the tubing from which the rings are fabricated shall not rupture or crack.

3.1.3 Residual stress. When tested as specified in ASTM B 154 (Mercurous Nitrate Test for Copper and Copper Alloys), the tubing from which the rings are fabricated shall not show evidence of stress corrosion cracking caused by residual stress.

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

- a. CID document number, revision, and CID PIN
- b. Quality assurance provisions
- c. Preservation, packing and marking as required. (see 5.1)

7.3 National Stock Numbers (NSNs). The following NSNs correspond to this CID. The list is not indicative of all possible NSNs associated with this document.

<u>NSN</u>	<u>CAGE</u>	<u>PART NUMBER</u>
4730-00-243-9133	8T694	M11521-07
4730-00-243-9135	OHEV9	M11521-05
4730-00-243-9136	24871	M11521-02

Table II. Nominal hose size and ring length.

Nominal hose size	Ring length +1/32 - 0							
	3/4	7/8	1	1-1/4	1-3/8	1-1/2	1-7/8	2
3/4	-01			-05	-08			
1		-03						
1-1/2	-02			-06	-09			
2			-04		-10			
2-1/2				-07		-11		
3							-12	
4								-13

7.4 Intended use. Expansion rings are used to secure hose and couplings together. The expansion ring is inserted inside the end of a hose and expanded through a swaging process. The coupling and expansion ring are securely fit together as one piece.

7.5 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. This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers addressed.

SUGGESTED SOURCES OF SUPPLY

<u>Manufacturer's commercial and government entity (CAGE)</u>	<u>Manufacturer's name and address</u>
8T694	Red Head Brass Inc. 643 Legion Drive Shreve, OH 44676 (330) 567-2903
OHEV9	Technical Components Inc. 3901 Industry Blvd., Bldg. 1, Ste 6 Lakeland, FL 33811 (813) 646-3253
24871	Harold D. Hard Co. 2040 Oakland Park Avenue Columbus, OH 43224-3848 (614) 471-9700

7.6 Government users. To acquire information on obtaining these expansion rings from the Government inventory system, contact Defense Supply Center, Columbus, ATTN: DSCC-CM, P.O. Box 3990, Columbus, OH 43216-5000, or telephone (614) 692-7884.

7.7 SOURCE FOR REFERENCE DOCUMENTS.

7.8 The American Society for Testing and Materials (ASTM) may be obtained from; ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, phone: (610) 832-9585.

MILITARY INTERESTS:

Custodians:
Army - AT
Air Force - 99

Review activity:
Air Force - 82

CIVIL AGENCY COORDINATING ACTIVITY:
GSA - FSS

Preparing activity:
DLA-CC

(Project 4730-0714)