

INCH-POUND

MIL-DTL-7750C
7 August 2007
 SUPERSEDING
 MIL-H-7750B
 19 January 1973

DETAIL SPECIFICATION

HOUSING, PARACHUTE RIPCORD

Reactivated after 7 August 2007 and may be used for new and existing designs and acquisitions.

This specification is approved for use by all departments and agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers one type and eight sizes (length) of parachute ripcord housings in accordance with PIA PS70104.

1.2 Classification. Parachute ripcord housings are of the sizes listed in table I (see 6.2).

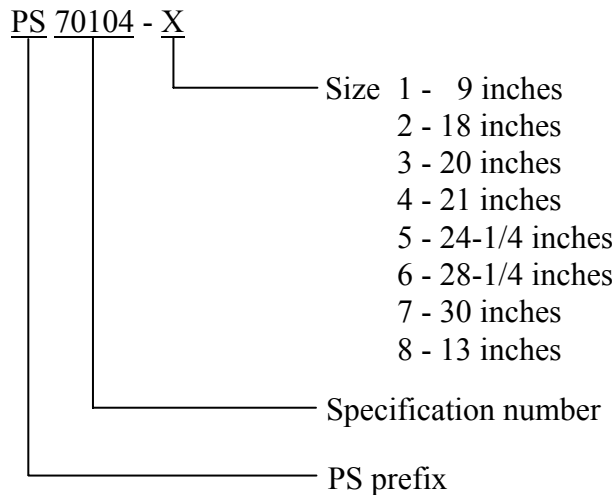
TABLE I. Sizes (length) of ripcord housings.

Size	Length (inches)	Size	Length (inches)
PS70104-1	9	PS70104-5	24-1/4
PS70104-2	18	PS70104-6	28-1/4
PS70104-3	20	PS70104-7	30
PS70104-4	21	PS70104-8	13

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1.3 Part or identifying number (PIN). The PIN to be used for parachute ripcord housings acquired to this specification is created in accordance with PIA PS70104 as follows:



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 specification 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 the documents cited in sections 3 and 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 (see 6.2).

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-129	- Military Marking for Shipment and Storage.
MIL-STD-1916	- DoD Preferred Methods for Acceptance of Product.

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

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2.3 Non-government publications. The following documents 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 (see 6.2).

PARACHUTE INDUSTRY ASSOCIATION (PIA)

PIA PS70104

- Parachute Ripcord Housing.

(Copies of these documents are available online at <http://www.pia.com/> or from the Parachute Industry Association, 3833 West Oakton Street, Skokie, IL).

2.4 Order of precedence. 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 First article. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.2.

3.2 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.

3.3 Materials and construction. Materials, construction, and supplementary processes involved in the fabrication of the ripcord housing shall conform to the requirements specified in PIA PS70104.

3.4 Performance.

3.4.1 Elongation. The difference in the ripcord housing length due to elongation shall not exceed 5/8 inch for 12 inches of normal length when measured in accordance with 4.5.3.

3.4.2 Permanent set. The ripcord housing shall show no signs of permanent set when tested in accordance with 4.5.4.

3.4.3 Flexible tubing proof-load. The flexible tubing shall not show any visible evidence of failure or permanent deformation when subjected to a tension proof-load of not less than 300 pounds when tested in accordance with 4.5.5.

3.4.4 End-ferrule attachment strength. The end ferrules shall withstand a tensile load of not less than 150 pounds without separation when tested in accordance with 4.5.6.

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3.4.5 Housing twist. The size 1 housing shall withstand three complete turns, the size 8 four complete turns, and all other sizes five complete turns in a direction opposite to the helix of the tubing without unraveling when tested in accordance with 4.5.7.

4. VERIFICATION

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

- a. First article inspection (see 4.2).
- b. Conformance inspection (see 4.3).

4.2 First article inspection. First article inspection shall be performed on three complete parachute ripcord housings when a first article sample is required (see 3.1). Each first article shall be a preproduction sample, in addition to production quantities, and shall not be returned to the manufacturer. The inspection shall include the examinations of 4.4 and the tests of 4.5. The presence of any defect or failure of any test shall be cause for rejection of the first article.

4.3 Conformance inspection. Conformance inspection shall include the examinations of 4.4.1 and 4.4.2.

4.3.1 Lot size. Lots shall be expressed in units of ripcord housings of the same size. Sampling shall be in accordance with level I of MIL-STD-1916.

4.4 Examinations.

4.4.1 Visual inspection. The ripcord housings shall be examined for the defects listed in table II.

TABLE II. Examination for defects.

Examine	Defect
Design	Any departure from the design specified in PIA PS70104.
Construction and workmanship	Any component missing, cracked, or damaged.
	Sharp edges, burrs, or metal slivers.
	Dirt, oil, grease, or other foreign matter.
	Components incorrectly assembled.
Identification marking	Missing, illegible, improper location, or not as specified.

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4.4.2 Dimensional inspection. The ripcord housings will be examined to determine conformance to the dimensions specified in PIA PS70104. Any nonconformance to the specified dimensions and tolerances shall constitute a defect.

4.5 Tests.

4.5.1 Lot size. Lots shall be expressed in units of ripcord housings of the same size. Sampling shall be in accordance with level I of MIL-STD-1916.

4.5.2 Required tests. Tests shall be performed in accordance with table III.

TABLE III. Tests.

Characteristic	Requirement paragraph	Test paragraph
Elongation	3.4.1	4.5.3
Permanent set	3.4.2	4.5.4
Flexible tubing proof-load	3.4.3	4.5.5
End-ferrule attachment strength	3.4.4	4.5.6
Housing twist	3.4.5	4.5.7

4.5.3 Elongation. The housing assembly length shall be measured in the free position and again when extended under 50 pounds tension. The difference shall not exceed the limit specified in 3.4.1.

4.5.4 Permanent set. The housing assembly shall be tightly coiled about a 2-inch diameter bar and examined for compliance with 3.4.2.

4.5.5 Flexible tubing proof-load. The flexible tubing below the end-ferrules shall be gripped in such a manner to distribute the load uniformly around the tubing. A proof-load of not less than 300 pounds shall be applied using a suitable testing machine. The housing assembly shall be examined for compliance with 3.4.3.

4.5.6 End-ferrule attachment strength. The end-ferrules shall be gripped in such a manner as to distribute the load uniformly around the wall of the ferrules. A proof-load of not less than 150 pounds shall be applied using a suitable testing machine. The housing assembly shall be examined for compliance with 3.4.4.

4.5.7 Twist test. The housing assembly shall be suspended in a vertical position with both ends held by the end-ferrules in suitable holding jaws. The end-ferrules shall be gripped uniformly so as not to deform their shape. The lower holding device with a 10 pound \pm 1 ounce weight attached shall hang free. The housing shall be turned 3, 4, or 5 complete turns in a direction opposite to the helix of the housing as specified in 3.4.5. The housing assembly shall be examined for compliance with 3.4.5.

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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 command. 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.

5.2 Marking. In addition to any special markings specified in the acquisition order (see 6.2), interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

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

6.1 Intended use. Ripcord housings covered by this specification are intended for use on personnel parachutes. The housing protects the ripcord cable from snagging and provides a free path for it.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Size of housing required (see 1.2).
- c. The specific issue of individual documents referenced (see 2.2.1 and 2.3).
- d. When first article is required (see 3.1).
- e. Packaging requirements (see 5.1).
- f. Marking requirements (see 5.2).

6.3 Subject term (key word) listing.

end-ferrule
flexible tubing

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

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Custodians:

Army - GL
Navy - AS
Air Force - 99

Preparing Activity:

DLA - GS8

(Project 1670-2006-004)

Review Activities:

Army - AV, MD
Navy - MC
Air Force - 11

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 database at <http://assist.daps.dla.mil>.