

MIL-H-7750B

19 January 1973

SUPERSEDING

MIL-H-7750A

21 July 1966

## MILITARY SPECIFICATION

## HOUSING, PARACHUTE RIPCORD

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

## 1. SCOPE

1.1 This specification covers one type and seven sizes (length) of parachute ripcord housings.

1.2 Classification. The housings shall be furnished in the following sizes (lengths) in accordance with the MS 70104 part numbers, as specified (see 6.2).

Size 1	- 9 inches	Size 6	- 28-1/4 inches
Size 2	- 18 inches	Size 7	- 30 inches
Size 3	- 20 inches	Size 8	- 13 inches
Size 4	- 21 inches		

## 2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

## SPECIFICATIONS

## FEDERAL

PPP-B-26	- Bag, Plastic, Polyethylene
PPP-B-601	- Boxes, Wood, Cleated-Plywood
PPP-B-636	- Boxes, Shipping, Fiberboard

## STANDARDS

## MILITARY

MIL-STD-105	- Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	- Marking for Shipment and Storage
MS 70104	- Housing, Parachute Ripcord

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(Copies of specifications, standards and drawings required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply:

National Motor Freight Traffic Association, Inc., Agent

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, D.C. 20036.)

Uniform Classification Committee, Agent

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, Illinois 60606.)

3. REQUIREMENTS

3.1 First article. When specified, the supplier shall furnish a sample for first article inspection and approval (see 4.2, 6.2 and 6.4).

3.2 Materials and construction. Materials, construction and supplementary processes involved in the fabrication of the ripcord housing shall conform to the requirements specified on MS 70104 and as specified herein.

3.3 Performance.

3.3.1 Elongation. The difference in the housing length due to elongation shall not exceed 5/8 inch for 12 inches of normal length when measured as specified in 4.4.1.1.

3.3.2 Permanent set. The housing shall show no signs of permanent set when tested as specified in 4.4.1.2.

3.3.3 Flexible tubing proofload. The flexible tubing shall not show any visible evidence of failure or permanent deformation when subjected to a tension proofload of not less than 300 pounds when tested as specified in 4.4.1.3.

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3.3.4 End-ferrule attachment strength. The end ferrules shall withstand a tensile load of not less than 150 pounds without separation when tested as specified in 4.4.1.4.

3.3.5 Housing twist. Size 1 (9 inch) housing lengths shall withstand three complete turns, size 8 (13 inch) four complete turns, and all other lengths five complete turns in a direction opposite to the helix of the tubing without unraveling, when tested as specified in 4.4.1.5.

3.4 Workmanship. The workmanship shall conform to the quality established by this specification.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements as specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 First article inspection. When required (see 6.2), examination of the first article shall be made of a completely fabricated end item for all provisions of this specification, except preparation for delivery requirements.

4.3 Inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

4.3.1 Component and material inspection. In accordance with 4.1 above, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications and standards unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase document.

4.3.2 In-process inspection. Inspection shall be made at appropriate stages of manufacture to determine conformance to the requirements of this specification. The Government reserves the right to exclude from consideration for acceptance any material(s) for which the in-process inspection has indicated nonconformance.

##### 4.3.3 Inspection of end item.

4.3.3.1 Examination of visual characteristics. Lots shall be expressed in units of ripcord housings of the same size. The sample unit shall be one ripcord housing. The characteristics to be examined and the defects applicable thereto shall be as specified below:

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Examine	Defect	Classification	
		Major	Minor
Design	Any departure from design specified on the MS Standard.	X	
Construction and workmanship	Any component missing, cracked, malformed, misaligned or damaged.	X	
	Sharp edges, burrs or metal slivers.	X	
	Dirt, oil, grease or other foreign matter.		X
	Components incorrectly assembled.	X	
Identification marking	Missing, illegible, improper location or not as specified.		X

4.3.3.2 Dimensional inspection. Lots shall be expressed in units of ripcord housings of the same size. The sample unit shall be one ripcord housing. Examination shall be made to determine conformance to dimensions specified on MS 70104. Any nonconformance to specified dimensions and tolerances shall constitute a defect.

4.3.3.3 Examination of preparation for delivery requirements. An examination shall be made to determine that packaging, packing and marking complies with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be closed. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted, incorrect, illegible, of improper size, location, sequence or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components, such as: Open and non-continuous heat sealed seams and closure of polyethylene bag. Incorrectly fabricated bag. Incomplete closure of container flaps, loose strapping, improper taping or inadequate stapling. Bulged or distorted container.

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<u>Examine</u>	<u>Defect</u>
Content	Number of housings per interior package is more or less than specified. <u>1/</u> Number of housings per shipping container is more or less than specified.

1/ For this defect, one interior package from each shipping container in the sample shall be examined.

4.3.3.4 Inspection levels and acceptable quality levels (AQL's). Inspection levels and the acceptable quality levels, expressed in defects per 100 units, shall be as follows:

	<u>Inspection levels</u>	<u>AQL's</u>
For examination in 4.3.3.1	II	1.0 Major 4.0 Total
For examination in 4.3.3.2	S-2	2.5 One class
For examination in 4.3.3.3	S-2	4.0 One class

#### 4.4 Tests.

4.4.1 Testing shall be performed in accordance with table I. Lots shall be expressed in units of ripcord housings of the same size. The sample size and acceptance number shall be as specified in table I. The acceptance number is applicable to the lot.

TABLE I. Tests

<u>Characteristic</u>	<u>Sample unit</u>	<u>Requirement paragraph</u>	<u>Test method</u>	<u>Results reported as</u>	<u>Insp. level</u>	<u>Accept. number</u>
Elongation	One housing	3.3.1	4.4.1.1	Pass or fail	S-3	0
Permanent set	"	3.3.2	4.4.1.2	"	"	0
Flexible tubing proofload	"	3.3.3	4.4.1.3	"	"	0
End ferrule attachment strength	"	3.3.4	4.4.1.4	"	"	0
Housing twist	"	3.3.5	4.4.1.5	"	"	0

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4.4.1.1 Elongation. The housing length shall be measured in the free position and again when extended under 50 pounds tension. The difference in length shall not exceed the limit specified in 3.3.1.

4.4.1.2 Permanent set. The housing shall be tightly coiled about a 2-inch diameter bar and examined for compliance with 3.3.2.

4.4.1.3 Proofload, flexible tubing. Grip the flexible tubing below the end-ferrules in such a manner as to distribute the load uniformly around the tubing. Apply not less than 300 pounds proofload using a suitable testing machine and examine for compliance with 3.3.3.

4.4.1.4 End-ferrule attachment strength. Grip the end-ferrules in such a manner as to distribute the load uniformly around the wall of the ferrules. Apply not less than 150 pounds proofload using a suitable testing machine and examine for compliance with 3.3.4.

4.4.1.5 Twist test. Suspend the housing in a vertical position with both ends held by the end ferrules in suitable holding jaws. Care should be taken to grip the ferrules uniformly so as not to deform the 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 as applicable, in a direction opposite to the helix of the housing and examined for compliance with 3.3.5.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C, as specified (see 6.2).

5.1.1 Level A. Each housing shall be packaged in a close-fitting 0.003-inch thick polyethylene film bag conforming to type I or II, grade A, style 1 of PPP-B-26. Prior to or during the heat seal closure operation, excess air within the bag shall be expelled. Ten housings of one size only shall be further packaged in a snug-fitting fiberboard box conforming to style RSC (end-loading), grade W6c of PPP-B-636. Each box shall be closed in accordance with method IV as specified in the appendix of the box specification.

5.1.2 Level C. Housings shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

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5.2.1 Level A. One hundred housings of one size only, packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC (end-loading), grade V2s of PPP-B-636, or overseas type, style I, grade A or B, type 2 load of PPP-B-601. Each fiberboard shipping container shall be closed in accordance with method III and reinforced as specified in the appendix of PPP-B-636. Each wood shipping container shall be closed and reinforced as specified in the appendix of PPP-B-601.

5.2.2 Level B. One hundred housings, of one size only packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC (end-loading), type CF (variety SW) or type SF, class domestic, grade 275 of PPP-B-636. Closure shall be in accordance with method II of the appendix of the container specification.

5.2.2.1 When specified (see 6.2), the fiberboard container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of the container specification.

5.2.3 Level C. Housings, packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. Containers shall be in accordance with Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

5.3 Marking. In addition to any special marking required by the contract or order, interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

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 Ordering data. Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Size of the housing required (see 1.2).
- (c) When a first article is required (see 3.1, 4.2 and 6.4).
- (d) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- (e) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).

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6.3 Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

6.4 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of ASPR 7-104.55. The first article should be a preproduction sample. The first article should consist of one unit. The contracting officer should include specific instructions in all procurement instruments regarding arrangements for inspection and approval of the first article.

Custodians:

Army - GL  
Navy - AS  
Air Force - 82

Review activities:

Army - AV  
Air Force - 11

User activity:

Navy - MC

Preparing activity:

Army - GL

Project No. 1670-0438



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SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p><b>INSTRUCTIONS:</b> This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
SPECIFICATION MIL-II-7750B Housing, Parachute Ripcord		
ORGANIZATION		
CITY AND STATE		CONTRACT NUMBER
MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT		
1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.		
B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES		
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID		
3. IS THE SPECIFICATION RESTRICTIVE? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes", in what way?)		
4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)		
SUBMITTED BY (Printed or typed name and activity - Optional)		DATE