

PPP-P-1877A

October 14, 1977

SUPERSEDING

Int. Fed. Spec. PPP-P-001877 (GSA-FSS)

May 31, 1974

## FEDERAL SPECIFICATION

## PACKAGING AND PACKING OF WOOD OFFICE FURNITURE

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

## 1. SCOPE

1.1 This specification covers the packaging, packing, palletization, and marking requirements for various pieces of wood office furniture covered by the Federal specifications listed in table I (see 6.1).

## 2. APPLICABLE DOCUMENTS

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

Federal Specifications:

L-P-378	-	Plastic Sheet and Strip, Thin Gauge, Polyolefin.
QQ-S-781	-	Strapping, Steel, and Seals.
PPP-B-601	-	Boxes, Wood, Cleated-Plywood.
PPP-B-636	-	Boxes, Shipping, Fiberboard.
PPP-B-640	-	Boxes, Fiberboard, Corrugated, Triple-Wall.
PPP-B-1364	-	Boxes, Shipping, Corrugated Fiberboard, High Strength, Weather-Resistant, Double Wall.
PPP-C-843	-	Cushioning Material, Cellulosic.
PPP-C-1797	-	Cushioning Material, Resilient, Low Density, Unicellular, Polypropylene Foam.
PPP-F-320	-	Fiberboard; Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.
PPP-T-42	-	Tape, Packaging, Paper (Light Duty Packaging and Bundling).

Federal Standard:

Fed. Std. No. 123 - Marking for Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Philadelphia, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Houston, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

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Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.  
MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards 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., Traffic Department, 1616 P Street, N.W., Washington, DC 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, IL 60606.)

3. REQUIREMENTS

3.1 Materials. Materials used in the packaging, packing, palletization, and marking of wood office furniture shall be as specified herein and in the applicable specifications.

3.1.1 Lumber. Lumber used in the construction of wooden frames and pallets shall be dry, dressed softwood. The minimum grade shall be No. 2 structural southern pine or No. 3 common northeastern or western softwood.

3.1.2 Nails.

3.1.2.1 Frame nails. All nails used in the construction of wooden frames shall be 7d or 8d, cement coated, flat head coolers. The nails shall be driven through both boards at each joint and the nail points shall be clinched into the board. Alternatively, cement coated staples, 16 gauge, 7/16 crown, step point design, and of adequate length to permit clinching, a minimum of 1/4 inch, shall be used.

3.1.2.2 Pallet nails. All nails used in the construction of pallets shall be pallet nails having a helical thread with a minimum of four flutes. The nails shall be 2-1/4 inches long, 0.120 inch shank diameter, 0.138 inch pitch diameter, 1/4 inch head diameter and a 5/32 inch long diamond or chisel point. The helical thread shall form an angle  $60^\circ + 5^\circ$  with a plane perpendicular to the axis of the nail shank. The threads shall extend from the diamond or chisel point to a point not less than 1-1/2 inches up the shank.

3.1.3 Polyethylene film. The polyethylene film used herein shall conform to L-P-378, type I, grade A, finish 1. The thickness shall be as specified herein.

3.1.4 Tape. Tape shall conform to PPP-T-42.

3.1.5 Cushioning material. Cellulosic cushioning material specified herein shall conform to PPP-C-843, type II, minimum 1/2 inch thick unless otherwise specified herein. The polypropylene foam cushioning material specified herein shall conform to PPP-C-1797 and shall be built up to a minimum of 1/4 inch thick unless otherwise specified herein.

3.1.6 Wrapping paper. Paper used to wrap wood office furniture shall be machine glazed kraft paper having a minimum basis weight of 30 pounds per ream (24" x 36" - 500).

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

3.2.1 Level A and B.

3.2.1.1 Bookcases.

3.2.1.1.1 Bookcase base and top. Each bookcase base and top shall have the finished surfaces completely covered with minimum 1/2 inch thick cushioning material. The cushioning material shall be macerated paper blankets, wood fiber felt blankets, cellulosic cushioning material specified in 3.1.5, or minimum 1/4 inch thick polypropylene foam specified in 3.1.5. The cushioning shall be secured in place with tape specified in 3.1.4.

3.2.1.1.2 Bookcase section. Each bookcase section shall have the exterior finished surfaces completely covered with minimum 1/2 inch thick cushioning material. The cushioning material shall be macerated paper blankets, wood fiber felt blankets, cellulosic cushioning material specified in 3.1.5, or minimum 1/4 inch thick polypropylene foam specified in 3.1.5. The cushioning shall be secured in place with tape specified in 3.1.4.

3.2.1.1.3 Bookcase, case type. When leveling glides are furnished on the bookcase, they shall be set at their lowest position. Unless otherwise specified, each bookcase shall be furnished completely set up. When specified (see 6.2), the bookcase shall be furnished with its legs detached. Each detached leg shall be wrapped with kraft paper specified in 3.1.6 or 1/8 inch thick polypropylene foam specified in 3.1.5, and each pair of detached legs packaged in a close-fitting fiberboard box. The screws required for each pair of detached legs shall be packaged in a plastic or kraft paper bag which shall be sealed and placed in the box containing the legs.

Each adjustable shelf shall be removed and completely wrapped with 1 mil film specified in 3.1.3, 1/8 inch thick polypropylene foam specified in 3.1.5, or paper specified in 3.1.6. Each wrapped shelf, and when applicable, boxes containing detached legs and screws, shall be secured at the bottom of the unit. When the bookcase is furnished with doors, the doors shall be immobilized by use of clips or other suitable means of fastening. All finished surfaces shall be completely covered with cushioning material as specified in 3.2.1.1.2 which shall be secured in place with tape specified in 3.1.4.

The top shall be protected with angular edge protectors. These edge protectors shall be made in not more than two sections and shall be constructed from two plies of material conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

3.2.1.2 Credenzas, storage units, telephone cabinets, typewriter stands. When leveling glides are furnished on the item, they shall be set at their lowest position. Unless otherwise specified, each item of furniture shall be furnished set up. When specified (see 6.2), the item of furniture shall be furnished with its legs detached. Each detached leg shall be wrapped with kraft paper specified in 3.1.6 or 1/8-inch thick polypropylene foam specified in 3.1.5, and each pair of detached legs packaged in a close-fitting fiberboard box. The screws required for each pair of detached legs shall be packaged in a plastic or kraft paper bag which shall be sealed and placed in the box containing the legs.

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Each adjustable shelf shall be removed and completely wrapped with 1 mil film specified in 3.1.3, 1/8 inch thick polypropylene foam specified in 3.1.5, or paper specified in 3.1.6. Each wrapped shelf, and when applicable, boxes containing detached legs and screws, shall be secured at the bottom of the unit. When the item is furnished with doors, the doors shall be immobilized by use of clips or other suitable means of fastening. All finished surfaces shall be completely covered with cushioning material made of one of the following or a combination of the following materials.

Macerated Paper Blankets  
Cellulose Wadding specified  
in 3.1.5.

Laminated Creped Cellulose wadding  
backed with corrugated fiberboard  
Polypropylene foam specified  
in 3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. The cushioning shall be secured in place with tape specified in 3.1.4.

The top shall be protected with angular edge protectors. These edge protectors shall be made in not more than four sections and shall be constructed from two plies of material conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

### 3.2.1.3 Desks and desk attachments.

3.2.1.3.1 Desks. All leveling glides shall be set at their lowest position. Each drawer shall be secured in the closed position with clips which shall not mar the exposed finish of the desk. The legs, top, sides, back and front of the desk shall be protected with cushioning material made of one of the following or a combination of the following materials:

Macerated Paper Blankets  
Cellulose Wadding specified  
in 3.1.5.

Laminated Creped Cellulose wadding  
backed with corrugated fiberboard  
Polypropylene foam specified  
in 3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. The cushioning shall be secured in place with tape as specified in 3.1.4.

Keys shall be packaged in a plastic bag, paper bag or wrapped with kraft paper and secured with tape specified in 3.1.4 to the inside of the top drawer on the bottom.

The top shall be protected with angular edge protectors. These edge protectors shall be made in not more than four sections and shall be constructed from two plies of material conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

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3.2.1.3.2 Desk attachments without pedestals (set up and knocked down). All leveling glides shall be set at their lowest position. The legs, top, side and back of the desk attachment shall be completely covered with cushioning material made of one of the following or a combination of the following materials:

Macerated Paper  
Cellulose Wadding specified  
in 3.1.5.

Laminated Creped Cellulose wadding  
backed with corrugated fiberboard.  
Polypropylene foam specified in  
3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch and other cushioning shall be not less than 1/2 inch thick. The cushioning shall be secured in place with tape specified in 3.1.4.

When the desk attachment is furnished disassembled, all screws and connecting hardware shall be packaged in a cotton cloth drawstring bag, kraft paper envelope or plastic bag. The bag or envelope shall be secured to the cushioned desk attachment components with pressure sensitive tape.

When the desk attachment is furnished set up, the top shall be protected with angular edge protectors. These edge protectors shall be made in not more than four sections and shall be constructed from two plies of material conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum, with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

3.2.1.3.3 Desk attachments with pedestals. When the desk attachment is furnished with legs, the legs shall be removed from the pedestal and individually protected with cushioning material specified in 3.2.1.3.2. Hardware used in fastening the legs to the pedestal shall be packaged in a plastic or kraft paper bag. When the pedestal contains drawers, the wrapped legs and packaged hardware shall be secured in the top drawer, and the drawers shall be secured in the closed position with clips which shall not mar the exposed finish of the desk attachment. When the pedestal does not contain drawers, the wrapped legs and packaged hardware shall be packaged in a close-fitting fiberboard box. The desk attachment with legs removed shall be packaged as specified in 3.2.1.3.2 for set up desk attachments.

3.2.1.4 Tables, set up. All leveling glides shall be set at their lowest position. When the table contains a drawer, the drawer shall be secured in the closed position with clips which shall not mar the exposed surface of the table. The legs and points of contact between the table and the inner walls of the shipping container shall be protected with cushioning material fabricated in the form of pads or blankets. The cushioning shall be made of one of the following or a combination of the following materials:

Macerated Paper  
Cellulose Wadding specified  
in 3.1.5

Laminated cellulose wadding  
backed with corrugated fiberboard.  
Polypropylene foam specified  
in 3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. The cushioning material shall be secured in place with tape specified in 3.1.4. The top shall be protected with angular edge protectors. These edge protectors shall be made in not more than four sections and shall be constructed from two plies of material conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

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3.2.1.5 Tables, knocked down. Each table shall be shipped disassembled. The nuts, bolts, and washers shall be tightly secured in the holes in the legs and, when applicable, the stretchers. Each leg and stretcher shall be wrapped with paper specified in 3.1.6 and covered with cushioning material made of one of the following or a combination of the following materials:

Macerated Paper	Laminated cellulose wadding
Cellulose wadding specified	backed with corrugated fiberboard.
in 3.1.5.	Polypropylene foam specified
Nonmarring corrugated fiberboard.	in 3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. The kraft paper and cushioning material shall be secured in place with tape specified in 3.1.4. The wrapped legs and stretchers shall be secured inside the table apron to prevent their shifting and moving inside the shipping container.

The top and apron shall be covered with cushioning material as specified for the legs. The cushioning material shall be secured in place with tape specified in 3.1.4. The top shall be further protected with angular edge protectors. These edge protectors shall be made from two plies of fiberboard conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum, with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard built up to a thickness of not less than 3/4 inch. The edge protectors shall extend onto the top surface a minimum of 2 inches and down the sides and ends of the top a minimum of 2 inches. The edge protectors shall protect all corners and a minimum of 75 percent of the perimeter of the table top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

3.2.1.6 Typewriter stand. All finished surfaces of the typewriter stand shall be completely covered with cushioning material made of one of the following or a combination of the following materials:

Macerated Paper	Laminated cellulose wadding
Cellulose Wadding specified	backed with corrugated fiberboard.
in 3.1.5	Polypropylene foam specified
	in 3.1.5.

Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. The cushioning material shall be secured in place with tape as specified in 3.1.4. The top shall be further protected with angular edge protectors. These edge protectors shall be made from two plies of fiberboard conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum with the flutes running perpendicular to the score line. Alternatively, the edge protectors shall be preformed clearance pads made of multiple plies of single faced corrugated fiberboard, built up to a thickness of not less than 3/4 inch. The edge protectors shall protect all four corners and a minimum of 75 percent of the perimeter of the typewriter stand top. The edge protectors shall be positioned under all points on the top edges of the shipping container where strapping is applied.

### 3.2.1.7 Costumers.

3.2.1.7.1 Knocked down. Each section of the costumer shall be individually wrapped in two thicknesses of nonabrasive kraft paper with a minimum basis weight of 70 pounds (24" x 36" x 500). The paper shall be secured in place with not less than 3 strips of tape specified in 3.1.4 or 3 ties of twine which shall be equidistantly spaced along the length of the section. The wrapped costumer sections shall be packaged together with cushioning material which shall completely cover each section and shall provide not less than 1/2 inch clearance between the sections at all points. The cushioning shall be made of one of the following or a combination of the following materials:

Macerated Paper	Polypropylene foam specified
Cellulose Wadding specified	in 3.1.5
in 3.1.5	

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Polypropylene foam cushioning shall be not less than 1/4 inch thick and other cushioning shall be not less than 1/2 inch thick. When polypropylene foam cushioning is used, the kraft paper wrap may be omitted. The cushioning material shall be secured in place with tape specified in 3.1.4.

3.2.1.7.2 Set-up. Each costumer shall be wrapped with two thicknesses of paper or cushioned at all points of contact with the interior blocking and bracing specified in 3.3.1 or 3.3.2.7. When paper is used, it shall be nonabrasive kraft paper with a minimum basis weight of 70 pounds per ream (24" x 36" x 500). When cushioning material is used, it shall be a minimum of 1/2 inch thick, except as noted below, and shall be made of one of the following or a combination of the following materials:

Macerated Paper	1/4 inch thick polypropylene foam
Cellulose wadding specified in 3.1.5.	foam specified in 3.1.5.

The paper or cushioning material shall be secured in place with tape specified in 3.1.4 or ties of twine.

### 3.2.1.8 Chairs.

3.2.1.8.1 Straight leg. Each chair shall be packaged assembled. All surfaces of the chair that come in contact with the shipping container shall be cushioned. The cushioning shall be in the form of pads, not less than 1/2 inch in thickness, extending not less than 2 inches above, below and to each side of the point of contact with the shipping container. The cushioning material shall be macerated paper, wood fiber felt, cellulose wadding specified in 3.1.5, or polypropylene foam specified in 3.1.5. The cushioning shall be secured in place with tape specified in 3.1.4 or cross ties of twine with a minimum breaking strength of 30 pounds.

Alternatively, the chair shall be blocked and braced in the shipping container to provide a minimum of 1 inch clearance between the chair and the inside surface of the container except the bottom surface. The cushioned or blocked and braced chair shall be completely covered with kraft paper specified in 3.1.6, or with plastic film specified in 3.1.3, not less than 2 mil in thickness.

3.2.1.8.2 Rotary base. Each chair shall be set at its lowest rotary position and packaged as specified in 3.2.1.8.1.

3.2.1.9 Stationery trays. Each stationery tray shall be wrapped in polyethylene film specified in 3.1.3 having a minimum thickness of 1 mil and packaged in a close-fitting box conforming to PPP-B-636, class domestic. The box shall be closed in accordance with the appendix to PPP-B-636.

3.2.2 Level C. Each item of furniture shall be packaged in accordance with the supplier's standard commercial practice.

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

### 3.3.1 Level A.

#### 3.3.1.1 Bookcase.

3.3.1.1.1 Bookcase section and base. Each bookcase section or base, packaged as specified in 3.2.1.1.1 or 3.2.1.1.2 as applicable, shall be individually packed in a close-fitting box conforming to PPP-B-636, grade V13c, style RSC. The box shall be closed, sealed and reinforced in accordance with the appendix to PPP-B-636.

3.3.1.1.2 Bookcase top. Each bookcase top, packaged as specified in 3.2.1.1.1, shall be individually packed in a close-fitting box conforming to PPP-B-636, grade V13c, style FTC or OPF. The box shall be closed, sealed and reinforced in accordance with the appendix to PPP-B-636.

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3.3.1.1.3 Bookcase, case type. Each bookcase, packaged as specified in 3.2.1.1.3, shall be placed on a four piece wood frame which shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together and shall prevent the legs of the bookcase from contacting the bottom of the shipping container. The bookcase on its frame shall be packed upright in a close-fitting box conforming to PPP-B-636, grade V13c, style RSC, DBLCC or IC. The box shall be closed, sealed and reinforced in accordance with the appendix to PPP-B-636. Dimension and weight limitations of PPP-B-636 are waived.

3.3.1.2 Credenzas, storage units, telephone cabinets, typewriter stands. Each item, packaged as specified in 3.2.1.2, along with any packaged shelves and detached hardware, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2; PPP-B-1364, style RSC; or PPP-B-636, grade V13c, style RSC. When a fiberboard box is used as the shipping container, the item of furniture shall rest on a wood frame which shall prevent the legs or glides from contacting the bottom of the shipping container. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together, but shall not be nailed or stapled to the box. Dimension and weight limitations of PPP-B-640, PPP-B-1364 and PPP-B-636 are waived. Each fiberboard box with a gross weight of 200 pounds or more shall be constructed with an overlap manufacturer's joint secured with stitches or staples. The box shall be closed, waterproof sealed and strapped (reinforced) in accordance with the appendix to the applicable box specification.

3.3.1.3 Desks and desk attachments.

3.3.1.3.1 Desks. Each desk, packaged as specified in 3.2.1.3.1, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2; or PPP-B-1364, style RSC. When a fiberboard box is used as the shipping container, the desk shall rest on a diagonally braced wood frame which shall prevent the legs or glides from contacting the bottom of the shipping container. The overall length and width of the frame shall be equal to the inside length and width of the shipping box. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together, but shall not be nailed or stapled to the box. Dimension and size limitations of PPP-B-640 and PPP-B-1364 are waived. Each fiberboard box with a gross weight of 200 pounds or more shall be constructed with an overlapped manufacturer's joint secured with stitches or staples. The box shall be closed, waterproof sealed and strapped (reinforced) in accordance with the appendix to the applicable box specification.

3.3.1.3.2 Desk attachments without pedestals.

3.3.1.3.2.1 Set up. Each desk attachment, packaged as specified in 3.2.1.3.2, shall be packed in a close-fitting box conforming to PPP-B-636, grade V13c, style RSC. The desk attachment shall rest on a wood frame which shall prevent the legs from contacting the bottom of the shipping container and shall support the desk attachment in its upright position. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame shall be covered with pads of cushioning material at all points where it contacts the top, back of side panels of the desk attachments. The pads shall be secured to the frame with pressure sensitive tape or twine. The box shall be closed, waterproof sealed and reinforced in accordance with the appendix to the box specification.



3.3.1.3.2 Knocked-down. Each desk attachment, packaged as specified in 3.2.1.3.2, shall be packed in a close-fitting box conforming to PPP-B-636, grade V13c, style optional. The box shall be closed, waterproof sealed and reinforced in accordance with the appendix to the box specification.

3.3.1.3.3 Desk attachments with pedestals. Each desk attachment, packaged as specified in 3.2.1.3.3, shall be packed with its packaged legs and hardware in a close-fitting box conforming to PPP-B-636, grade V13c, style RSC. Dimension and weight limitations of PPP-B-636 are waived. The box shall be furnished with a bottom pad of equal length and width as the inside length and width of the shipping box. The bottom pad shall be made of fiberboard conforming to PPP-F-320, grade V13c. The shipping box shall be closed, waterproof sealed and reinforced in accordance with the appendix to the box specification.

3.3.1.4 Tables, set up. Each table, packaged as specified in 3.2.1.4, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2 or PPP-B-1364. The box shall be closed, waterproof sealed, and strapped in accordance with the appendix to the applicable box specification.

3.3.1.5 Tables, knocked down. Each table, packaged as specified in 3.2.1.5, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2; or PPP-B-1364. Dimension and weight limitations of PPP-B-640 and PPP-B-1364 are waived. The box shall be closed, waterproof sealed and reinforced in accordance with the appendix to the box specification.

3.3.1.6 Typewriter stand. Each typewriter stand, packaged as specified in 3.2.1.6, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2; or PPP-B-1364. The box shall be closed and strapped in accordance with the appendix to the box specification.

3.3.1.7 Costumers. Each costumer, packaged as specified in 3.2.1.7, shall be packed in a close-fitting box conforming to PPP-B-636, grade V13c, style FPF, FTC or RSC. Adequate blocking and bracing shall be used in the shipping box to support the packaged costumer and maintain a minimum 3/4 inch clearance between the packaged costumer and the inside walls of the shipping box. The box shall be closed, waterproof sealed and reinforced in accordance with the appendix to the applicable box specification.

3.3.1.8 Chairs. Each chair, packaged as specified in 3.2.1.8, shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-640, class 2; or PPP-B-1364. The box shall be closed and strapped in accordance with the appendix to the applicable box specification. Fiberboard boxes shall be waterproof sealed in accordance with the appendix to the applicable box specification prior to the strapping operation.

3.3.1.9 Stationery trays. Twelve stationery trays, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, V3c; PPP-B-640, class 2, or PPP-B-1364. The box shall be closed, sealed, and reinforced in accordance with the appendix to the applicable box specification.

### 3.3.2 Level B.

#### 3.3.2.1 Bookcases.

3.3.2.1.1 Bookcase section and base. Each bookcase section or base, packaged as specified in 3.2, shall be individually packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275, style RSC. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.1.2 Bookcase top. Each bookcase top, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety SW or DW, grade 275, style FTC or OPF. The box shall be closed in accordance with the appendix to PPP-B-636.

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**3.3.2.1.3 Bookcase, case type.** Each bookcase, packaged as specified in 3.2, shall be placed on a four piece wood frame which shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together. The frame shall separate the bottom of the bookcase legs from the bottom of the shipping box. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The bookcase on its bottom frame shall be packed upright in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275, style RSC or IC. The dimension and weight limitations of PPP-B-636 are waived. The box shall be closed in accordance with the appendix to PPP-B-636.

**3.3.2.2 Credenzas, storage units, telephone cabinets, typewriter stands.** Each item of furniture, packaged as specified in 3.2, shall be placed on a wood frame which shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together, but shall not be nailed or stapled to the box. The frame shall prevent the legs or glides from contacting the bottom of the box. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The item of furniture on its frame, along with any packaged shelves and detached hardware, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, minimum grade 275, style RSC, IC, or HSC with a 3-inch deep cover used as the box bottom. The dimension and weight limitations of PPP-B-636 are waived. The box shall be closed in accordance with the appendix to PPP-B-636. Each style HSC box with a length exceeding 48 inches shall be reinforced with two steel straps applied girthwise around the box not less than 8 inches nor more than 12 inches from the ends of the box. Each strap shall conform to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch.

**3.3.2.3 Desks and desk attachments.**

**3.3.2.3.1 Desks.** Each desk, packaged as specified in 3.2, shall be placed on a diagonally braced frame which shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame shall prevent the legs of the desk from contacting the bottom of the shipping box. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The frame members shall be double nailed or double stapled together, but shall not be nailed or stapled to the box.

The desk on its frame shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style RSC, IC, or HSC with a 3-inch deep cover used as the box bottom; or PPP-B-640, class 1. The dimension and weight limitations of PPP-B-636 and PPP-B-640 are waived. The box shall be closed in accordance with the appendix to the box specification.

Each style HSC box with a length exceeding 48 inches shall be reinforced with two steel straps applied girthwise around the box not less than 8 inches nor more than 12 inches from the ends of the box. Each strap shall conform to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch.

**3.3.2.3.2 Desk attachments without pedestals.**

**3.3.2.3.2.1 Set up.** Each desk attachment, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style RSC. The dimension and weight limitations of PPP-B-636 are waived. The desk attachment shall rest on a wood frame which shall prevent the legs from contacting the bottom of the shipping container and shall support the desk attachment in its upright position. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame shall be covered with pads of cushioning material at all points where it contacts the top, back or side panels of the desk attachments. The pads shall be secured to the frame with pressure sensitive tape or twine. The shipping box shall be closed in accordance with the appendix to PPP-B-636.

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3.3.2.3.2.2 Knocked down. Each desk attachment, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style optional. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.3.3 Desk attachments with pedestals. Each desk attachment, packaged as specified in 3.2, shall be packed in its upright position with its packaged legs and hardware in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style RSC. The dimension and weight limitations of PPP-B-636 are waived. The box shall be furnished with a bottom pad of equal length and width as the inside length and width of the shipping box. The bottom pad shall be made of fiberboard conforming to PPP-F-320, class domestic, type CF, variety DW, grade 275 minimum. The shipping box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.4 Tables, set up. Each table, packaged as specified in 3.2, shall be placed on a four piece wood frame which shall separate the legs of the table from the bottom of the shipping box. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or stapled together, but shall not be nailed or stapled to the bottom of the box. The table on its frame shall be packed in the upright position in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style RSC. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.5 Tables, knocked down.

3.3.2.5.1 Length up to and including 72 inches. Each table, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style FTC. The dimension and weight limitations of PPP-B-636 are waived. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.5.2 Length exceeding 72 inches. Each table, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-601, domestic type; or PPP-B-640, class 1. The dimension and weight limitations of PPP-B-640 are waived. The box shall be closed and strapped in accordance with the appendix to the applicable box specification.

3.3.2.6 Typewriter stand. Each typewriter stand, packaged as specified in 3.2, shall be placed on a four piece wood frame which shall separate the glides of the stand from the bottom of the box. The overall length and width of the frame shall be equal to the respective inside length and width of the shipping box. The frame members shall be made from nominal 1 inch x 4 inch lumber specified in 3.1.1. The frame members shall be double nailed or double stapled together, but shall not be nailed or stapled to the box. The typewriter stand on its frame shall be packed in the upright position in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style optional. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.7 Costumers. Each costumer, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, grade 275 minimum, style FPF, FTC, or RSC. Adequate blocking and bracing shall be used in the shipping box to support the packaged costumer and maintain a minimum of 3/4 inch clearance between the packaged costumer and the inside walls of the shipping box. The box shall be closed in accordance with the appendix to PPP-B-636.

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3.3.2.8 Chairs. Each chair, packaged as specified in 3.2, shall be packed in its upright position in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety DW, style RSC, grade 275 minimum when the gross weight is 70 pounds or less; grade 350 minimum when the gross weight exceeds 70 pounds. The chair shall rest on a bottom pad made of two sheets of fiberboard which shall be identical to the material from which the shipping box is made. Each sheet shall be of equal length and width as the inside length and width of the shipping box. One sheet shall have its flutes running in the length direction and the other shall have its flutes running in the width direction. In lieu of being placed on a bottom pad, the chair shall be suspended inside the box on wood forms or fiberboard forms which shall provide a minimum of 1-1/2 inches clearance between the bottom of the box and the chair legs or casters as applicable. When fiberboard is used for the forms, it shall be made of identical material as the shipping box. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.2.9 Stationery trays. Twelve stationery trays, packaged as specified in 3.2, shall be packed in a close-fitting box conforming to PPP-B-636, class domestic, type CF, variety SW or DW, grade 275 minimum, style optional. The box shall be closed in accordance with the appendix to PPP-B-636.

3.3.3 Level C. Each item of furniture, packaged as specified in 3.2, shall be packed in a container that will assure carrier acceptance and safe delivery to destination in compliance with the Uniform Freight Classification or the National Motor Freight Classification. Unless otherwise specified (see 6.2), blanket wrapping wood furniture shall be prohibited.

3.4 Palletization. Unless otherwise specified (see 6.2), the following items of furniture shall be palletized in accordance with the specified requirements.

3.4.1 Bookcase, case type. Three bookcases, packed as specified in 3.3.1.1.3 or 3.3.2.1.3, shall be palletized in the upright position on a two-way entry expendable wood pallet. All lumber shall be in accordance with 3.1.1. The pallet shall be constructed with nominal 2 x 4 inch stringers and nominal 1 inch thick top and bottom deckboards. The stringers shall be positioned on the nominal 2 inch wide edge with three stringers being equidistantly spaced over the entire width of the pallet. There shall be three top deckboards and three bottom deckboards. The top and bottom deckboards shall be equidistantly spaced over the length of the pallet. The outer deckboards shall be nominal 1 x 6 inch lumber and the center deckboards shall be nominal 1 x 4 inch lumber. Each stringer shall be equal in length to the width of the load. Each deckboard shall be equal in length to the length of the load. The length of the load shall be greater than its width. The deckboards shall be nailed to the stringers with pallet nails as specified in 3.1.2.2. Nominal 1 x 6 inch deckboards shall be nailed to the stringers with three nails at each intersection. Nominal 1 x 4 inch deckboards shall be nailed to the stringers with two nails at each intersection. All nails shall be staggered to prevent wood splitting. End nails shall be driven not less than 3/4 inch from the end edges of the deckboards. Edge nails shall be driven not less than 1 inch from the side edges of the deckboards with any remaining nails uniformly spaced between them. The heads of all nails shall be driven beneath the surface of the deckboards. All nails bent in driving shall be removed or broken off below the deckboard surface and replaced. The boxes shall be placed on the pallet so that there is no overhang or underhang between the boxes and the pallet. The outer boxes shall be positioned on the pallet so that the doors of the bookcases face toward the center box of the pallet load. The boxes shall be strapped to the pallet with strapping conforming to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch. Three straps shall be applied around the top, front and back of the load and the bottom side of the top deckboards of the pallet. The end straps shall be applied 8 + 2 inches from the ends of the load and the middle strap shall be applied on one side of and directly adjacent to the middle stringer of the pallet. Two straps shall be applied around the top and ends of the load and the bottom side of the pallet. These straps shall be applied 10 + 2 inches from the sides of the load. Edge protectors shall be used where the strapping contacts the top edges of the shipping containers. Each strap shall be sufficiently tensioned to prevent the load from shifting off its position on the pallet.

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**3.4.2 Credenzas.** Credenzas with a width of 48 inches or more shall be palletized as follows: Two credenzas, packed as specified in 3.3.1.1.3 or 3.3.2.1.3, shall be palletized in the upright position on a two-way entry expendable wood pallet. All lumber shall be in accordance with 3.1.1. The pallet shall be constructed with nominal 2 x 4 inch stringers and nominal 1 inch thick top and bottom deckboards. The stringers shall be positioned on the nominal 2 inch wide edge with three stringers being equidistantly spaced over the entire width of the pallet. There shall be five top deckboards and three bottom deckboards. The top and bottom deckboards shall be equidistantly spaced over the length of the pallet. The outer deckboards shall be nominal 1 x 6 inch lumber and the inner deckboards shall be nominal 1 x 4 inch lumber. Each stringer shall be equal in length to the width of the load. Each deckboard shall be equal in length to the length of the load. The length of the load shall be greater than its width. The deckboards shall be nailed to the stringers with pallet nails as specified in 3.1.2.2. Nominal 1 x 6 inch deckboards shall be nailed to the stringers with three nails at each intersection. Nominal 1 x 4 inch deckboards shall be nailed to the stringers with two nails at each intersection. All nails shall be staggered to prevent wood splitting. End nails shall be driven not less than 3/4 inch from the end edges of the deckboards. Edge nails shall be driven not less than 1 inch from the side edges of the deckboards with any remaining nails uniformly spaced between them. The heads of all nails shall be driven beneath the surface of the deckboards. All nails bent in driving shall be removed or broken off below the deckboard surface and replaced. The boxes shall be placed on the pallet so that there is no overhang or underhang between the boxes and the pallet. The boxes shall be positioned on the pallet so that front sides of the credenza face the center of the pallet. The boxes shall be strapped to the pallet with three straps conforming to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch. Each strap shall be applied around the top, front and back of the load and the bottom side of the top deckboards of the pallet. The end straps shall be applied 8 + 2 inches from the ends of the load and the middle strap shall be applied on one side of and directly adjacent to the middle stringer of the pallet. Edge protectors shall be used when the strapping contacts the top edges of the shipping containers. Each strap shall be sufficiently tensioned to prevent the packed credenzas from shifting off their positions on the pallet.

**3.4.3 Desks** Each desk, packed as specified in 3.3.1.3.1 or 3.3.2.3.1, shall be palletized in its upright position on a two-way entry expendable wood pallet. All lumber shall be in accordance with 3.1.1. The pallet shall be constructed with nominal 2 x 4 inch stringers and nominal 1 inch thick top and bottom deckboards. The stringers shall be positioned on the nominal 2 inch wide edge with three stringers being equidistantly spaced over the entire width of the pallet. There shall be 3 top deckboards and 3 bottom deckboards. The top and bottom deckboards shall be equidistantly spaced over the entire length of the pallet. The outer deckboards shall be nominal 1 x 6 inch lumber and the center deckboards shall be nominal 1 x 4 inch lumber. Each stringer shall be equal in length to the outside width of the shipping container. Each deckboard shall be equal in length to the outside length of the shipping container. The deckboards shall be nailed to the stringers with pallet nails as specified in 3.1.2.2. Nominal 1 x 6 inch deckboards shall be nailed to the stringers with 3 nails at each intersection. Nominal 1 x 4 inch deckboards shall be nailed to the stringers with 2 nails at each intersection. All nails shall be staggered to prevent wood splitting. End nails shall be driven not less than 3/4 inch from the end edges of the deckboards. Edge nails shall be driven not less than 1 inch from the side edges of the deckboards, with any remaining nails uniformly spaced between them. The heads of all nails shall be driven beneath the surface of the deckboards. All nails bent in driving shall be removed or broken off below the deckboard surface and replaced. The packed desk shall be placed on the pallet so that there is no overhang or underhang between the box and the pallet. The packed desk shall be strapped to the pallet with three straps conforming to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch. Each strap shall be applied around the top, front and back of the packed desk and the bottom side of the top deckboards of the pallet. The end straps shall be applied 8 + 2 inches from the ends of the load and the middle strap shall be applied on one side of and directly adjacent to the middle stringer of the pallet. Edge protectors shall be used where the strapping contacts the top edge of the shipping container. Each strap shall be sufficiently tensioned to prevent the packed desk from shifting off its position on the pallet during shipping and handling.

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3.4.4 Desk attachments (set-up). Desk attachments with a length of 42 inches or more shall be palletized as follows: Four desk attachments, packed as specified in 3.3.1.3.2.1, 3.3.1.3.3, 3.3.2.3.2.1, or 3.3.2.3.3, shall be palletized in their upright position in two tiers of two each on a two way entry expendable wood pallet. All lumber shall be in accordance with 3.1.1. The pallet shall be constructed with nominal 2 x 4 inch stringers and nominal 1 inch thick top and bottom deckboards. The stringers shall be positioned on the nominal 2 inch wide edge with three stringers being equidistantly spaced over the width of the pallet. There shall be five top deckboards and three bottom deckboards. The top and bottom deckboards shall be equidistantly spaced over the length of the pallet. The outer deckboards shall be nominal 1 x 6 inch lumber and the inner deckboards shall be nominal 1 x 4 inch lumber. Each stringer shall be equal in length to the width of the load. Each deckboard shall be equal in length to the length of the load. The length of the load shall be greater than its width. The deckboards shall be nailed to the stringers with pallet nails as specified in 3.1.2.2. Nominal 1 x 6 inch deckboards shall be nailed to the stringers with three nails at each intersection. Nominal 1 x 4 inch deckboards shall be nailed to the stringers with two nails at each intersection. All nails shall be staggered to prevent wood splitting. End nails shall be driven not less than 3/4 inch from the end edges of the deckboards. Edge nails shall be driven not less than 1 inch from the side edges of the deckboards with any remaining nails uniformly spaced between them. The heads of all nails shall be driven beneath the surface of the deckboards. All nails bent in driving shall be removed or broken off below the deckboard surface and replaced. The boxes shall be placed on the pallet so that there is no overhang or underhang between the boxes and the pallet. The boxes shall be strapped to the pallet with three straps conforming to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch. Each strap shall be applied around the top, front and back of the load and the bottom side of the top deckboards of the pallet. The end straps shall be applied 8 ± 2 inches from the ends of the load and the middle strap shall be applied on one side of and directly adjacent to the middle stringer of the pallet. Edge protectors shall be used where the strapping contacts the top edges of the shipping containers. Each strap shall be sufficiently tensioned to prevent the load from shifting off its position on the pallet.

3.4.5 Storage units. Storage units with a width of 42 inches or more, packed as specified in 3.3.1.2 or 3.3.2.2, shall be palletized in the upright position as specified in 3.4.2 for credenzas.

3.4.6 Tables, knocked down. Tables with a length of 48 inches or more and width of 30 inches or more, shall be palletized as follows: Five tables, packed as specified in 3.3.1.5 or 3.3.2.5, shall be palletized flat on a two way entry expendable wood pallet. All lumber used to construct the pallet shall be in accordance with 3.1.1. The pallet shall be constructed with nominal 2 x 4 inch stringers and nominal 1 inch thick top and bottom deckboards. The stringers shall be positioned on the nominal 2 inch wide edge with three stringers being equidistantly spaced over the width of the pallet. There shall be three top deckboards and three bottom deckboards. The top and bottom deckboards shall be equidistantly spaced over the length of the pallet. The outer deckboards shall be nominal 1 x 6 inch lumber and the inner deckboards shall be nominal 1 x 4 inch lumber. Each stringer shall be equal in length to the width of the load. Each deckboard shall be equal in length to the length of the load. The length of the load shall be greater than its width. The deckboards shall be nailed to the stringers with pallet nails as specified in 3.1.2.2. Nominal 1 x 6 inch deckboards shall be nailed to the stringers with three nails at each intersection. All nails shall be staggered to prevent wood splitting. End nails shall be driven not less than 3/4 inch from the end edges of the deckboards. Edge nails shall be driven not less than 1 inch from the side edges of the deckboards with any remaining nails uniformly spaced between them. The heads of all nails shall be driven beneath the surface of the deckboards. All nails bent in driving shall be removed or broken off below the deckboard surface and replaced. The boxes shall be placed on the pallet so that there is no overhang or underhang between the load and the pallet. The boxes shall be strapped to the pallet with strapping conforming to QQ-S-781, class 1, type I or IV, size 1/2 x 0.020 inch or 5/8 x 0.015 inch. Three straps shall be applied around the top,

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front and back of the load and the bottom side of the top deckboards of the pallet. The end straps shall be applied 8 + 2 inches from the ends of the load and the middle strap shall be applied on one side of and directly adjacent to the middle stringer of the pallet. Two straps shall be applied around the top and ends of the load and the bottom side of the pallet. These straps shall be applied 8 + 2 inches from the sides of the load. Edge protectors shall be used where the strapping contacts the top edges of the top shipping container. Each strap shall be sufficiently tensioned to prevent the load from shifting off its position on the pallet.

3.5 Marking. Marking shall be in accordance with 3.5.1 or 3.5.2 as specified (see 6.2).

3.5.1 Civil agencies. In addition to the special marking specified in 3.5.3, all marking shall be in accordance with Fed. Std. No. 123.

3.5.2 Military activities. In addition to the special marking specified in 3.5.3, all marking shall be in accordance with MIL-STD-129.

3.5.3 Special marking. In addition to the marking required by 3.5.1 or 3.5.2, each shipping container shall be marked with arrows on both sides and both ends approximately 4 inches down from the top edge near each corner. The word "UP" shall be marked at the point of each arrow in 2 inch letters. One side panel of each shipping container shall be marked with the date of pack by month and year (i.e. 5-77).

The top panel of each shipping container shall be marked in 2 inch letters with the following:

TOP  
THIS SIDE UP  
FURNITURE-FRAGILE  
HANDLE WITH CARE

For items which contain glass components, the side and end panels of the shipping container shall be marked in 2 inch high letters with the following:

FURNITURE-INCLUDING GLASS  
FRAGILE, HANDLE WITH CARE

For items which do not contain glass components, the side and end panels of the shipping container shall be marked in 2 inch letters with the following:

FURNITURE  
FRAGILE-HANDLE WITH CARE

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements 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 that supplies and services conform to prescribed requirements.

4.2 Sampling for inspection and acceptance. Sampling for inspection and acceptance shall be performed in accordance with the provisions set forth in MIL-STD-105, except where otherwise indicated.

4.3 Inspection. An inspection shall be made to determine that the packaging, packing, and marking as required by this specification are complied with. Defects shall be scored in accordance with table II. The sample unit shall be one shipping container fully prepared for delivery. The lot shall be the number of containers offered for delivery at one time. The inspection level shall be S-2 with an acceptable quality level (AQL) of 4.0 percent defective.

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TABLE II. Classification of defects

Examine	Defects
Marking (exterior and interior container)	Omitted, incorrect, illegible, of improper size, location, sequence, or method of application.
Materials	Component missing or damaged.
Workmanship	Inadequate application of components such as incomplete closure of case liners or container flaps, loose strapping or tape banding, inadequate stapling, bulging or distortion of containers.
Contents (exterior and interior)	Contents per container is more or less than required.

4.4 Examination of palletization. An examination shall be made to determine that palletization is in compliance with this specification. Defects shall be scored as specified in table III. The sample unit for this examination shall be one palletized unit load ready for shipment. The lot shall be the number of palletized unit loads submitted for inspection at one time. The inspection level shall be S-1 with an AQL of 4.0 percent defective.

TABLE III. Examination of palletization

Examine	Defects
Finished dimension	Length, width, or height exceeds maximum requirements.
Palletization	Not as specified. Pallet pattern not as specified. Load not bonded with required straps specified. Pallet damaged. Straps not properly tensioned to immobilize the load.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.

5. THIS SECTION IS NOT APPLICABLE TO THIS SPECIFICATION

6. NOTES

6.1 Intended use. The requirements of this specification are intended to be used for the packaging, packing, palletization, and marking of wood office furniture bought by the Federal Government.

6.2 Ordering data. Purchasers should select the preferred options permitted herein, and include the following information in procurement documents:

- (a) Title, number, and date of this specification.
- (b) Level of packaging required (see 3.2).
- (c) When legs are to be removed (see 3.2.1.1.3 and 3.2.1.2).
- (d) Level of packing required (see 3.3).
- (e) When blanket wrapping is authorized for level C packing (see 3.3.3).
- (f) When palletization is not required (see 3.4).
- (g) Type of marking required (see 3.5).



TABLE I

	PACKAGING		PACKING			PALETTIZATION 1/
	LEVEL		LEVEL			
	A & B	C	A	B	C	
<b>BOOKCASE</b>						
AA-O-250/1						
BASE	3.2.1.1.1	3.2.2	3.3.1.1.1	3.3.2.1.1	3.3.3	
SECTION	3.2.1.1.2	3.2.2	3.3.1.1.1	3.3.2.1.1	3.3.3	
TOP	3.2.1.1.1	3.2.2	3.3.1.1.2	3.3.2.1.2	3.3.3	
CASE TYPE	3.2.1.1.3	3.2.2	3.3.1.1.3	3.3.2.1.3	3.3.3	3.4.1
AA-O-230/1	3.2.1.1.3	3.2.2	3.3.1.1.3	3.3.2.1.3	3.3.3	3.4.1
AA-B-1596	3.2.1.1.3	3.2.2	3.3.1.1.3	3.3.2.1.3	3.3.3	
AA-O-222	3.2.1.1.3	3.2.2	3.3.1.1.3	3.3.2.1.3	3.3.3	3.4.1
<b>CREDENZA</b>						
AA-O-250/2	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	3.4.2
AA-O-230/6	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	3.4.2
AA-O-219	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	3.4.2 (48" or longer width)
AA-O-1959/3	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	3.4.2 (48" or longer length)
<b>DESKS</b>						
AA-O-230/4	3.2.1.3.1	3.2.2	3.3.1.3.1	3.3.2.3.1	3.3.3	3.4.3
AA-O-250/3	3.2.1.3.1	3.2.2	3.3.1.3.1	3.3.2.3.1	3.3.3	3.4.3
AA-D-201	3.2.1.3.1	3.2.2	3.3.1.3.1	3.3.2.3.1	3.3.3	3.4.3
AA-O-220	3.2.1.3.1	3.2.2	3.3.1.3.1	3.3.2.3.1	3.3.3	3.4.3
AA-O-1959/1	3.2.1.3.1	3.2.2	3.3.1.3.1	3.3.2.3.1	3.3.3	3.4.3
<b>DESK ATTACHMENTS</b>						
AA-O-230/4	3.2.1.3	3.2.2	3.3.1.3	3.3.2.3	3.3.3	3.4.4
AA-O-250/3	3.2.1.3	3.2.2	3.3.1.3	3.3.2.3	3.3.3	3.4.4 (Set-up only)
AA-O-220	3.2.1.3.3	3.2.2	3.3.1.3.3	3.3.2.3.3	3.3.3	3.4.4
AA-O-1959/2	3.2.1.3.3	3.2.2	3.3.1.3.3	3.3.2.3.3	3.3.3	3.4.4
<b>STORAGE UNITS</b>						
AA-O-250/5	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	3.4.5 (42" or longer width)
<b>TABLES-KD</b>						
AA-O-230/5	3.2.1.5	3.2.2	3.3.1.5	3.3.2.5	3.3.3	3.4.6
AA-O-250/6	3.2.1.5	3.2.2	3.3.1.5	3.3.2.5	3.3.3	3.4.6 (48" x 30" or larger)
AA-T-112	3.2.1.5	3.2.2	3.3.1.5	3.3.2.5	3.3.3	3.4.6 (48" x 30" or larger)
AA-O-245	3.2.1.5	3.2.2	3.3.1.5	3.3.2.5	3.3.3	3.4.6
<b>TABLE-SET UP</b>						
AA-O-230/5	3.2.1.4	3.2.2	3.3.1.4	3.3.2.4	3.3.3	
AA-O-245	3.2.1.4	3.2.2	3.3.1.4	3.3.2.4	3.3.3	

	TABLE I (cont)					
	PACKAGING		PACKING			PALLETIZATION 1/
	LEVEL		LEVEL			
A & B	C	A	B	C		
<u>TYPEWRITER STAND</u>						
AA-O-250/7	3.2.1.6	3.2.2	3.3.1.6	3.3.2.6	3.3.3	
AA-O-230/7	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	
AA-S-683	3.2.1.4	3.2.2	3.3.1.4	3.3.2.4	3.3.3	
<u>COSTUMER-KD</u>						
AA-O-230/3	3.2.1.7.1	3.2.2	3.3.1.7	3.3.2.7	3.3.3	
<u>COSTUMER-SU</u>						
AA-C-556	3.2.1.7.2	3.2.2	3.3.1.7	3.3.2.7	3.3.3	
<u>CHAIRS</u>						
AA-C-400	3.2.1.8	3.2.2	3.3.1.8	3.3.2.8	3.3.3	
AA-C-300	3.2.1.8	3.2.2	3.3.1.8	3.3.2.8	3.3.3	
AA-O-1628	3.2.1.8	3.2.2	3.3.1.8	3.3.2.8	3.3.3	
AA-O-210	3.2.1.8	3.2.2	3.3.1.8	3.3.2.8	3.3.3	
<u>TELEPHONE CABINET</u>						
AA-O-230/2	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	
AA-O-151	3.2.1.2	3.2.2	3.3.1.2	3.3.2.2	3.3.3	
<u>STATIONERY TRAY</u>						
AA-D-201	3.2.1.9	3.2.2	3.3.1.9	3.3.2.9	3.3.3	

1/ If no paragraph number appears in this column for a particular item, palletization is not required for that item.

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**MILITARY INTERESTS:**

DOD has waived coordination on revisions and amendments to this Federal Specification until further notice

Preparing activity:

GSA-FSS

**CIVIL AGENCY COORDINATING ACTIVITIES:**

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