

INCH- POUND

MIL-S-29479 (MC)
August 4, 1995

MILITARY SPECIFICATION

SLACKS, WOMEN'S

This specification is approved for use by U.S. Marine Corps, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for women's slacks.

1.2 Classification. The slacks shall be of one type in the following classes, sizes and lengths (see 6.2).

Class 1 - Polyester/Rayon, Gabardine: White: 2400

Class 2 - Polyester/Rayon, Gabardine: (Lined) White: 2400

Schedule of Sizes and Lengths

Sizes: X0, 2, 4, 6, 8, 10, 12, 14, 16, 18

Lengths: Short, Regular and Long

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation. (see 6.2).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to the Commander (PSE-C), Marine Corps Systems Command, Quantico, VA 22134-5010 by using the self addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8410

DISTRIBUTION STATEMENT A. Approved for public release;

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SPECIFICATIONS

FEDERAL

- A-A-50198 - Thread, Gimp, Cotton
- A-A-50199 - Thread, Polyester Core, Cotton or Polyester Covered
- A-A-52094 - Thread Cotton
- A-A-52106 - Cloth, Twill or Plain Weave, Polyester or Polyester Blend
- V-B-871 - Button, Sewing Hole and Button, Staple (Plastic)
- V-F-106 - Fastener, Slide, Interlocking
- V-T-295 - Thread, Nylon
- DDD-L-20 - Label; For Clothing, Equipage and Tentage (General Use)

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- MIL-C-41820 - Cloth, Gabardine, Polyester and Rayon
- MIL-C-44296 - Cloth, Fusibles

STANDARDS

FEDERAL

- FED-STD-191 - Textile Test Methods
- FED-STD-751 - Stitches, Seams and Stitchings

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- FED-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-656 - Provisions for Evaluating Quality of Slacks Women's
- MIL-STD-984 - Provisions for Size Labeling of Women's Uniform Clothing

(Unless otherwise indicated, copies of federal and military specifications, standards and handbooks are available from the Standardization Documents Order Desk, Bldg 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094).

2.1.2 Other Government documents. The following other Government documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

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Department of Defense (DOD) Standard Color Card of
Sewing Threads 1968

Department of Defense (DoD) Standard Shades for Buttons 1966

(Copies may be obtained from the Color Association of the United States, Inc., 200 Lexington Avenue, New York, New York 10016.)

2.2 Non-Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issue of the documents cited in the solicitation. (see 6.2).

AMERICAN SOCIETY OF TESTING AND MATERIALS

ASTM D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to American Society of Testing and Materials, 1916 Race Street, Philadelphia, PA 19103).

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this document takes precedence. Nothing in this document, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Guide sample. Guide samples are furnished solely for guidance and information to the contractor (see 6.3). Variation from this specification may appear in the sample, in which case this specification shall govern.

3.2 First article. When specified (see 6.2), in the contract or purchase order, the contractor shall furnish sample slacks for first article inspection and approval (see 4.4 and 6.4).

3.3 Materials.

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3.3.1 Basic materials. The basic material for the slacks shall be cloth, gabardine, polyester/rayon, white shade 2400, 8 ounce, conforming to type III class 1 of MIL-C-41820.

3.3.2 Lining.

3.3.2.1 Lining and pocketing. The material for the pockets, crotch lining and pocket stays shall be twill or plain weave cloth, polyester or polyester blend cloth conforming to class 1 of A-A-52106. The color shall be white.

3.3.3.1 Lining. The material for lining the class 2 slacks shall be cloth, nylon, 1.6 ounce, white, shade 2414 conforming to the following requirements when tested as specified in Section 4, Table III.

Weight - ounces per square yard (minimum)	1.6
Yarns per inch (minimum):	
- warp	104
- filling	67
Weave	
Breaking strength - pounds (minimum):	
(Dry)	
- warp	142
- filling	96
Tearing strength - pounds (minimum):	
- warp	53
- filling	72
Acidity (pH)	5.0 to 8.0
Material identification:	
- warp	Nylon
- filling	Nylon

3.3.4 Thread. The thread for each class of slacks shall be as follows:

a. Class 1 and 2. Cotton thread shall be used conforming to A-A-52094 as follows:

Operation	Type	Ticket No.	Ply
Buttonholes	III	0	3
Seams, stitching	III	A	3
Overedging	I	70	2
Buttons	II	16	4

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As an alternate to the cotton thread, a polyester, cotton-covered thread conforming to A-A-50199, ticket No. 50, 3 ply or ticket No. 70, 2 ply may be used. CAUTION: Some automatic machines will not operate properly with this thread.

3.3.4.1 Automatic button sewing. If an automatic machine which sews and shanks (wraps) the buttons in one operation is used, the thread shall be waxed nylon monochord special No. 5, having a minimum breaking strength of 16 pounds and a minimum length per pound of 2150 yards. This thread shall be tested for these requirements in accordance with test methods in V-T-295.

3.3.4.2 Color. The color of the thread for the slacks shall be white, AG, Cable No. 66049.

NOTE: See DoD Standard Color Card of Official Standardized Shades for Sewing Threads 1968.

3.3.5 Gimp. The gimp for reinforcing the buttonhole shall conform to type I or II, size No. 8 of A-A-50198. The color of the gimp shall be white.

3.3.6 Button. The button for the waistband shall be 27-line conforming to type II, class D, style 4 of V-B-871. The color of the buttons shall be white, shade BA, Cable No. 62031.

3.3.7 Slide fasteners. The slide fasteners shall conform to either 3.3.7.1 or 3.3.7.2.

3.3.7.1 Metal. The slide fasteners shall conform to type I, style 3, short tab pull, cam lock size LS (commercial No. 4), of V-F-106, except that the salt spray test shall not be required. All the components of the slide fastener shall be brass and from the same supplier (see 4.5.1). The tape shall be cotton or synthetic or a combination. The length of the slide fastener shall be 7 inches for all sizes.

3.3.7.2 Plastic coil. The slide fastener shall be manufactured of polyester or nylon consisting of an automatic or cam lock and shall be equal to commercial size No. 2. The tape shall be a blend of nylon and cotton or polyester and cotton or polyester. The length of the slide fastener shall be 7 inches for all sizes.

3.3.7.3 Color. The color of the slide fastener tape shall be white, shade C, Cable No. 66503.

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3.3.8 Label. Each pair of slacks shall have a combination identification, and instruction label conforming to type VI, classes 1 and 3 of DDD-L-20. The slacks are intended to be dry cleaned and the labels shall show fastness to dry cleaning. The inscription shall be as follows:

SLACKS, WOMEN'S
FIBER CONTENT:
NAME OF CONTRACTOR
DRY CLEAN ONLY

3.3.8.1 Size labels. The size label shall conform to type VI, Class 2 of DDD-L-20 except the stock number is not required. The inscription on the size label shall conform to MIL-STD-984; Table II, Body Measurements for Marine Corps, Table III Height Ranges and Figure 2. Examples of labels for women's slacks is as follows:

Hip Circ	36"
Waist Circ	25-1/2"
Height	63-1/2 to 67" R
(Size Code 6)	

(Note: The label on the bottom of Figure 2 shall be used for Marine Corps items.)

3.3.8.2 Label/tag. Each item shall be individually bar-coded with type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on the item when it is folded and/or packaged as specified and so that it causes no damage to the item.

3.3.9 Fusible interlining. The fusible interlining for the waistband and left fly shall be white. The fusible shall conform to type V, Class 1, Style B of MIL-C-44296. The fusible shall be fused to the basic material as recommended by the supplier of the fusible.

3.3.10 Hook and Eye. The hook and eye shall be North and Judd (Hook Flex H-49, K-50, H-89 and E-90); Universal Button Co. (Talon #3, #7 and #8 hook with #8 eye); Akim Co or Patwin, Inc., Junior Series, Type JB; Stimpson (P-536, D-4086, D04457, D-4288); Rau (OA50, OX 1256, 080415); Patwin, Inc. (Slim-Slak with MB eye, and Slik-Slax) or equal. The finish shall be nickel plate. Prior to use of an "or Equal" item, the supplier shall submit the item with supporting data to the contracting officer for approval. (see 4.5.1)

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3.4 Design. The slacks shall be the Marine Corps design shown on Figures 1 and 2, having a two-piece waistband with button closure, with hook and eye, 1/8-inch top side pockets, outlet at the seat seam, front fly with slide fastener and slightly tapered legs with unhemmed overedged bottoms.

3.5 Patterns. Standard patterns to be used to cut working patterns will be furnished by the Government. The patterns allow 1/2-inch seam allowance for all seams, except as otherwise indicated herein. The working patterns shall be identical to the Government patterns. Neither the Government patterns nor the working patterns shall be altered in any way.

3.5.1 Pattern parts. The component parts of the slacks shall be cut from materials as specified herein in accordance with the pattern parts indicated below:

Pattern Nomenclature		
Item	Basic Material	No. of Cut parts
1.	Front	2
2.	Back	2
3.	Left Waistband	1
4.	Right Waistband	1
5.	Left Fly	1
6.	Right Fly	1
7.	Front Pocket Bearer	2
8.	Front Pocket Facing	2
Interlining (Fusible)		
9.	Left Fly	1
10.	Left Waistband	1
11.	Right Waistband	1
Lining (class 2 only)		
12.	Front (use item 1)	2
13.	Back (use item 2)	2
Lining (Cloth Twill)		
14.	Crotch Lining	1
15.	Pocket Stays	2
16.	Pockets	2

3.6 Construction. The slacks shall be manufactured in accordance with operation requirements as specified in Table I. The contractor is not required to follow the exact sequence of operations as listed in Table I, but all operations specified shall be used to manufacture the slacks.

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3.6.1 Stitches, seams, and stitching. Stitch, seam and stitching types specified in Table I shall conform to FED-STD-751. Whenever two or more methods for seam or stitching types are given for the same part of the operation, any one of them may be used. Where stitch 401 is used, the looper (underthread) shall be on the inside of the slacks. The minimum and maximum number of stitches per inch shall be as specified in Table I.

3.6.1.1 Thread breaks and ends of seams. The ends of all seams and stitching produced with 301 stitch type, when not caught in other seams or stitching, shall be backstitched not less than 1/4 inch. Thread breaks (all stitch types) shall be secured by stitching back of the break not less than 1/2 inch. Skipped stitches may be repaired by using 301 stitch type. The ends of a continuous line of stitching shall be overlapped not less than 1/2 inch. Thread ends of darts shall be trimmed to a length of 1/2 inch. When an automatic dart machine is used, the ends shall be backstitched not less than 3 stitches.

3.6.2 Buttonhole. The buttonhole shall be eyelet-end, taper-bar type. The finished cut length of buttonhole shall be 5/8 inch.

3.6.3 Pressing. Pressing as required in Table I shall be accomplished with a heated pressing iron or machine.

3.6.4 Shade marking. The component parts shall be marked to insure a uniform shade and size throughout the slacks. Any method of shade marking may be used except:

- a. Corrosive metal fastening devices.
- b. Sew-on shade tickets.
- c. Adhesive type tickets, which leave traces of paper or adhesive on material after removal of tickets.

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
1	<p><u>Cutting.</u></p> <p>a. Cut the slacks in strict accordance with patterns furnished, which shall show size, placement of component parts, directional lines for cutting, marks for finished length of darts and notches for proper assembly of parts.</p> <p>b. All component parts of the basic material shall be cut from one piece of material except fly facings, which may be cut from ends. Parts cut from ends shall approximate the shade of the main assembly.</p> <p>c. Place fronts and backs so that the directional line is in the warp direction. The directional line may vary from the warp direction by not more than 1 inch on fronts and backs. Measurement shall be taken from the top and bottom of the directional line on the pattern to the selvage edge of the fabric. The difference between the two measurements shall not exceed the tolerance specified.</p> <p>d. Cut the waistbands and left fly interlining in accordance with the patterns.</p>					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
1	<p><u>Cutting.</u> (cont'd)</p> <p>e. Cut the lining for the class 2 slacks in accordance with the patterns.</p> <p>f. Cut the crotch lining, pocket stays and pockets from the twill cloth in accordance with the patterns.</p>					
2	<p><u>Shade marking.</u></p> <p>a. Mark or ticket all component parts of slacks except parts cut from ends, to insure a correct size and uniform shade throughout the slacks (or uniform).</p> <p>b. The use of corrosive metal fastening devices or sew-on tickets for shade marking is prohibited.</p> <p>c. The use of ink pad numbering machine, rubber stamp, or pencil is acceptable provided the numbers do not show on the outside of the slacks and whenever possible, numbers shall be covered by the seam allowance.</p>					
3	<p><u>Replacement of defective components.</u></p> <p>a. During the spreading, cutting and manufacturing process, components having material defects or</p>					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
3	<u>Replacement of defective components.</u> (cont'd) damages that are classified as defects in MIL-STD-656 shall be removed from production and replaced with nondefective and properly matched components.					
4	<u>Make darts</u> <u>(basic material).</u> The darts shall be tapered on the inside without twists or puckers. Thread ends at lower end of darts shall not be trimmed closer than 1/2 inch in length. End of dart need not be backtacked except when automatic dart machine is used.					
	a. Fold and stitch back darts as indicated by notches and marks on the pattern. Press toward center back. Stitch across top of dart 1/8 inch from raw edge.	301	OSf-1	12-14	50/3	50/3
	b. Fold and stitch front darts as indicated by notches and marks on the pattern. Press toward the center front. Stitch across the top of dart 1/8 inch from raw edge.	301	OSf-1	12-14	50/3	50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
5	<p><u>Make darts</u> (lining - class 2).</p> <p>The darts shall be tapered on the inside without twists or puckers. Thread ends at lower end of darts shall not be trimmed closer than 1/2 inch in length. End of dart need not be backtacked except when automatic dart machine is used.</p> <p>a. Fold and stitch back darts as indicated by notches and marks on the pattern. Press toward center back. Stitch across top of dart 1/8 inch from raw edge.</p> <p>b. Fold and stitch front darts as indicated by notches and marks on the pattern. Press toward the center front. Stitch across top of dart 1/8 inch from raw edge.</p>	301	OSf-1 and SSa-1	12-14	50/3	50/3
6	<p><u>Join lining to slacks</u> (class 2).</p> <p>Finished appearance. The front and back lining parts shall be joined to the front and back of the slacks without twists, puckers, pleats or distortion.</p> <p>a. Position front and front lining back to back with edges even and notches matching. Seam</p>	301	SSa-1	12-14	50/3	50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
6	<u>Join lining to slacks</u> (class 2). (cont'd) together 1/8 inch from all edges.					
	b. Position back and back lining back to back with edges even and notches matching. Seam together 1/8 inch from all edges.	301	OSf-1	12-14	50/3	50/3
7	<u>Join crotch pieces.</u> a. Fold crotch pieces in half lengthwise and attach the raw edge to the crotch of the front panels with a 1/8 inch seam at the raw edge. It may also be attached in the overedge operation.	301	SSa-1	12-14	50/3	50/3
8	<u>Overedge stitching.</u> a. Overedge stitch the raw edges of outseams and inseams of front and back parts.	503 or 504	EFd-1	8-10	70/2	70/2
	b. Overedge stitch the raw edges of center front seam, and seat seam.	503 or 504	EFd-1	8-10	70/2	70/2
	c. Fold fly piece in half lengthwise and overedge stitch side and bottom raw edges together.	503 or 504	EFd-1	8-10	70/2	70/2
	d. Position the interlining on the left fly facing and overedge stitch the back edge of interlining and facing	503 or 504	EFd-1	8-10	70/2	70/2

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
8	<u>Overedge stitching.</u> (cont'd) together.					
9	<u>Join side pocket stays.</u> a. The side pocket stays, with the bottom edge turned up 3/8 inch, shall be attached to the outseam with a 1/8 inch seam at the raw edge. It may also be attached in the overedge operation.	301	SSa-1	10-14	50/3	50/3
10	<u>Set side pocket bearer and facing.</u> Finished appearance. The side pocket bearer and facing shall be properly positioned and securely sewn with the stitching of uniform gauge and without pleats, puckers or other distortions. a. The side pocket bearer and facings shall each be a single ply of basic material. b. Position the bearer and facing on the pocket material in accordance with notches indicated by marks on the pattern. c. Fold under the front raw edge of bearer and facing 1/4 to 3/8 inch and stitch to the pocket 1/8 inch from the folded edge. Continue stitching across	301	LSd-1 and LSbj-1	10-14	50/3	50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
10	<p><u>Set side pocket bearer and facing.</u> (cont'd)</p> <p>the bottom raw edge. A selvage edge need not be turned.</p> <p>d. Position the label on the folded edge of right pocket, facing the wearer, and stitch the label to the pocket 1/16 to 1/8 inch from the label edge.</p>	301	SSa-1	10-14	50/3	50/3
11	<p><u>Attach side pockets (1/8 Top).</u></p> <p>Finished appearance. The edges of the pocket opening shall finish smooth and flat without distortion. Pocket openings shall be of uniform appearance. The bottom front corners of the pockets shall be back stitched. Care shall be taken to avoid notching the pockets on the under-side beyond the width of the side seam outlet.</p> <p>a. Position the outside of the fronts on the facing of the side pocket in accordance with the notches for the pocket openings as indicated by marks on the pattern.</p> <p>b. Seam front, facing and pocket material together from notch to notch 3/8 inch from the edge of the front.</p>	301	SSe-2 (a)	12-16	0	0

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
11	<u>Attach side pockets</u> (1/8 Top). (cont'd)					
	c. Cut the depth of the notches for the pocket opening to the seam. Raise stitch the joining seam on the pocket facing and pocket 1/16 inch from seam, catching all plies of the seam.	301	LSq-2	12-16	50/3	50/3
	d. Turn the pocket to the inside of the front so that the seam will finish on the inside of the pocket 1/16 inch back from the finished edge of pocket opening.					
	e. Top stitch the front from notch to notch through all plies of material, 1/4 inch from the finished edge of the pocket opening.	301	SSe-2 (b) (shows finished seam)	12-16	A or 50/3	A or 50/3
	f. Fold pocket inside out and seam raw edges from step to folded edge of pocketing 3/16 to 1/4 inch from edge. Notch pockets and bearers at top of step and turn.	301 or 401	SSae-2 (a) SSae-2	12-16 12-16	A or 50/3	A or 50/3
	g. Tack the ends of pocket opening to the facing with 1/4 to 3/8 inch tack. The right and left pocket opening shall not be out of alignment by more than 1/2 inch.	301	SSa-1 (each end)	12-16	A or 50/3	A or 50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
11	<p><u>Attach side pockets</u> (1/8 Top). (cont'd)</p> <p>h. In the finished slacks, the top of pocket shall extend into the waistband and be caught in the bottom stitching of waistband.</p> <p>i. The finished pocket opening (after bartacking) shall measure 5-3/4 to 6-1/2 inches.</p>					
12	<p><u>Join outseams.</u></p> <p>Finished appearance. Outseams shall be carefully joined with notches matching and without twists, puckers or pleats. The seams shall start and finish evenly and lie smooth and flat.</p> <p>a. Join the outseam with a 1/2 inch seam, matching the notches as indicated by marks on the patterns, joining the back pocket bearer to the front at the side seam and catching the side pocket stay with its bottom end turned up (if not previously caught in overedge operation) (see operation 9.a).</p> <p>b. Spread open the outseams from top edge of slacks to bottom and press smooth and flat with a heated pressing machine with the pocket stay</p>	<p>301 or 401</p>	<p>SSa-1</p> <p>SSa-1</p>	<p>12-14</p> <p>12-14</p>	<p>30/3</p> <p>30/3</p>	<p>30/3</p> <p>30/3</p>

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
12	<u>Join outseams.</u> (cont'd) folded and pressed flat over the open seam.					
13	<u>Finish side pockets.</u> a. Turn under the back edge of side pocket and position in line with the folded edge of the stay piece and stitch pocket to stay piece 1/4 inch to 3/8 inch from edge along the side seam allowance. Continue stitching along the side seamed edge of pocket to folded edge of pocket and securely back- stitch end of stitching.	301 and 301	SSc-1 SSe-2	12-16 12-16	50/3 50/3	50/3 50/3
14	<u>Make waistband.</u> Finished appearance. The two piece waistband shall be constructed with left and right parts. Each part shall consist of 1 ply of basic material and 1 ply of interlining. The left waistband shall have a pointed front end and the right waistband shall have a square end. The center back of the waistbands shall have square ends. a. Overedge stitch the inside raw edge of left and right waistbands, and interlinings. b. Fold the left waistband in half lengthwise, face	503 or 504 301	EFd-1 SSe-2 (a)	8-10 12-14	70/2 50/3	70/2 50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
14	<u>Make waistband.</u> (cont'd)					
	to face with ends even and notches matching. Join the plies together at the pointed end with a 1/4 inch seam, starting at the notches, forming the pointed end and stitching up to the folded edge. Finish the square end of left waistband with a 1/4 inch seam, turning up 1/4 inch of raw edge and seaming across the width of the waistband through all plies to close end.					
	c. Fold the right waistband in half lengthwise face to face with ends even. Finish each square end with a 1/4-inch seam, turning up 1/4 inch of raw edge and seaming across the width of the waistband through all plies to close the end.	301	SSe-2 (a)	12-14	50/3	50/3
	d. Trim the excess material at each end to 1/8 inch from the seams. Turn the right and left waistbands, forcing out the corners and point completely. Edgestitch 1/16 inch from the seamed edges at the pointed and squared ends.	301	SSe-2 (b)	12-14	50/3	50/3
	e. Continue to edgestitch along the length of the waistband 1/16 inch from the upper folded edge.	301	OSf-1	12-14	50/3	50/3

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NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
14	<u>Make waistband.</u> (cont'd) f. The edgestitching may be performed continuously with the top stitching on the outside of the waistband in operation 19a.					
15	<u>Join inseams.</u> a. Match notches at front and back of inseam and join with a 1/2-inch seam from notch to bottom. b. Press inseam open and flat.	301 or 401	SSa-1	12-14	50/3 50/3	50/3 50/3
16	<u>Make left fly.</u> Finished appearance. The left fly shall finish smooth and flat without twists, puckering or distortion. The overedge stitching shall be securely caught in the fabric. a. Position the slide fastener on the left fly facing and left fly interlining with bottom end of chain 1/4 inch above the fly notch and top edges even. The front edge of chain shall be 1/2 to 5/8 inch from front edge of finished fly. Stitch slide fastener tape to the fly through the interlining with a double row of stitches 3/16 to 1/4 inch gage.	301	LSbj-2	12-14	50/3	50/3

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NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
17	<p><u>Make right fly.</u></p> <p>Finished appearance. The right fly shall finish without bulkiness, twists, puckers or pleats.</p> <p>a. Position the slide fastener on the fly with the slide fastener tape 1/2 inch from the over-edged seam and the top edges even. Stitch the slide fastener to the fly 1/2 inch from the back edge of fly.</p>	301	LSbj-2	12-14	50/3	50/3
18	<p><u>Join left and right fly to front.</u></p> <p>Finished appearance. The seam joining the fly assemblies to the front shall be without pleats, puckers, twists or other distortions.</p> <p>a. Position the left fly assembly on the outside of left front, face to face, with notches matching. Join left fly assembly to front with a 1/2-inch seam.</p> <p>b. Turn joining seam onto fly assembly and stitch 1/16 inch from seamed edge, starting at top raw edge of fly and stitching to the notch.</p> <p>c. Turn left fly to the inside with joining seam 1/16 to 1/8 inch back of</p>	301	SSa-1	12-14	50/3	50/3
		301	LSb-1	12-14	50/3	50/3

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
18	<p><u>Join left and right fly to front.</u> (cont'd)</p> <p>folded edge. Press front edge without damage to the fastener, forcing out the seams to the edge.</p> <p>d. Stitch left fly to left front, starting at the top and continuing with a curve to the bottom notch. The stitching shall be $1-1/4 \pm 1/8$ inches from the front edge of the fly.</p> <p>e. Position right fly assembly on right front with overedged edges and top raw edges even. Join right fly to front with 1/2-inch seam.</p> <p>f. Press right and left fly flat with heated pressing iron, with the seam toward the side seam.</p> <p>g. Edge stitch 1/16 inch from the front seamed edge, through the slide fastener tape and the placket.</p>	301	SSa-1	12-14	50/3	50/3
		301	SSa-1	12-14	50/3	50/3
		301	LSq-2 (b)	12-14	50/3	50/3
19	<p><u>Join waistband to slacks.</u></p> <p>Finished appearance. The waistband shall be joined without twists, puckers, pleats or distortions. The back square ends of the waistband shall be even with the seat seams.</p>					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
19	<u>Join waistband to slacks.</u> (cont'd)					
	a. Position the left waistband on the left front, face to face, with the notch and finished left fly opening matching. Join together with a 3/8 inch seam.	301	SSa-1	12-14	50/3	50/3
	b. Position the right waistband on the outside of slacks, face to face, with square end and folded edge of placket even. Join together with a 3/8 inch seam.	301	SSa-1	12-14	50/3	50/3
20	<u>Attach hooks and eyes.</u> Finished appearance. In the finished slacks, when the hook and eye is engaged, the closure shall not bulge, pucker or twist. a. Position the hook at the center (1/4 inch off center tolerance) of the left waistband with the rolled edge of hook aligned with the slide fastener scoops. Attach hook to left waistband through a suitable reinforcement. b. Position the eye at the center of the right waistband aligned with slide fastener scoops and to correspond with hook and left waistband.					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
20	<u>Attach hooks and eyes.</u> (cont'd) Attach eye to right waistband through a suitable reinforcement.					
21	<u>Topstitch waistband.</u> Finished appearance. The waistband shall be sewn on smoothly and evenly and shall have a flat appearance throughout, without gathers, puckers, pleats or other distortions either in the waistband, front part or back part, and shall be even in width along the entire length. The waistband shall be $1\text{-}3/8 \pm 1/8$ inches wide.					
	a. Topstitch the waistband to the slacks $1/16$ inch from the lower folded edge, catching the over-edge stitched portion of waistband in the stitching, and with the stitching extending the entire length of the waistband.	301	BSr-2 (a)	12-14	50/3	50/3
22	<u>Join crotch and seat seam.</u> Finished appearance. The crotch and seat seams shall be joined with stitch tension of sufficient elasticity to meet strain encountered in sitting and stooping. The waist shall be measured					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
22	<p><u>Join crotch and seat seam.</u> (cont'd)</p> <p>before joining crotch and seat seam to assure correct waist size. In the finished slacks, the inseams shall meet and the right and left waistband joining seams shall be aligned; the base of the left fly shall cover the right fly on the outside.</p> <p>a. Measure waist to proper size before joining crotch, seat and waist seam.</p> <p>b. Join crotch and seat seams from the base of the fly to the notch with a 1/2-inch seam, tapering from the notch through waistband to accomplish the measured size and leaving a tail of stitching 3/4 to 1 inch long.</p> <p>c. Spread open crotch and seat seams and press smooth and flat with a heated pressing machine tucking in the stitching tail under the pressed open seat seam.</p> <p>d. The inseam at the crotch shall not stagger more than 1/4 inch.</p> <p>e. Topstitch through the finished waistband superimposing the topstitching</p>	401	SSa-1	8-10 (each needle)	AA Polyester	AA Polyester
		301	LSq-1	8-10	A	A

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
22	<u>Join crotch and seat seam.</u> (cont'd) and catching the pressed open seat seam at the top of the waistband.					
23	<u>Bartack fly.</u> Finished appearance. The bartacks shall be properly positioned and correctly placed to reinforce the points of strain. a. Bartack the bottom end of the fly horizontally through all plies at the juncture of the crotch seam and fly (see Figure 2). b. Bartack the inside front edge of right fly to back of left fly with a horizontal bartack. Bartack shall be $1 \pm 1/4$ inch from bottom folded point of right fly. c. Bartacks shall be $3/8$ to $1/2$ inch long and shall be stitched through all plies of material at the point of bartacking.	Bartack		21-28 per bartack	0	0
		Bartack		21-28 per bartack	0	0
24	<u>Finish slack bottoms.</u> a. Overedge stitch or pink the slack bottoms.	503 or 504	EFd-1	8-10	70/2	70/2

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
25	<p><u>Make buttonhole.</u></p> <p>Finished appearance. The buttonhole shall be clean-cut, well made and correctly positioned. The stitching shall be securely caught in the basic material. The buttonhole shall be well worked over gimp to fit a 27-line button. The purling of the buttonhole shall be on the outside of the waistband.</p> <p>a. Make 3/4 inch long horizontal, eyelet-end, taper-bar type buttonhole through the center of the pointed end of waistband with the inside, purled edge of the eyelet 1/2 to 5/8 inch from the finished ends to waistband.</p>	Buttonhole		44-46 per buttonhole (including tack)	0	0
26	<p><u>Clean slacks.</u></p> <p>a. All ends of stitching shall be trimmed and the loose threads removed from slacks. Pull and remove any basting threads.</p> <p>b. Any spots, stains and shade tickets or markings shall be removed without injury to the material.</p>					
27	<p><u>Sew on button.</u></p> <p>a. Close the slide fastener and mark or gage the outside ends of waistband with the location for</p>					

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TABLE I MANUFACTURING REQUIREMENTS

NO	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH/ IN	NDL	BOB/ LPR
27	<p><u>Sew on button.</u> (cont'd)</p> <p>sewing on the button to correspond with the eyelet of buttonhole.</p> <p>b. The button shall be positioned to engage with the eyelet end of buttonhole so that on the finished slacks, the ends of the waistband lie smooth and flat without twisting, bulging, or other distortions.</p> <p>c. Securely sew a 27-line button at the mark. The thread ends of hand sewn buttons shall be securely tacked. The button shall be sewn through all plies of waistband.</p>	101 or Hand		<p>14-16 per button 4 double per button (not including shank wrapping)</p>	<p>20/4</p> <p>20/4</p> <p>10/4</p>	20/4
28	<p><u>Press slacks.</u></p> <p>a. The tops shall be pressed smooth.</p> <p>b. The legs shall be pressed smooth and creased in the center with the seams matching at the bottom and in the crotch.</p>					

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3.7 Finished measurement. Finished measurements of slacks shall be as listed in Table II.TABLE II. Finished measurements. 1/

Size	Waist 2/	Hips 3/	Length Short	Inseam 4/ Regular	Long	Knee 5/	Bottom 6/
X0	22-1/2	35	32	34	36	19	16-1/2
2	23-1/2	36	32	34	36	19	16-1/2
4	24-1/2	37	32	34	36	19-1/2	17
6	25-1/2	38	32	34	36	19-1/2	17
8	27	39-1/2	32	34	36	20	17-1/2
10	28-1/2	41	32	34	36	20	17-1/2
12	30	42-1/2	32	34	36	20-1/2	18
14	32	44-1/2	32	34	36	20-1/2	18
16	34	46-1/2	32	34	36	21	18-1/2
18	36	48-1/2	32	34	36	21	18-1/2
Tolerance $\pm 1/2$							$\pm 1/2$

1/ All measurements and tolerances are expressed in inches.

2/ Waist. Twice the measurement taken in center of waistband from folded edge to folded edge.3/ Hips. Twice the measurement taken from folded edge to folded edge 7 inches from bottom of waistband.4/ Inseam. Length measurement taken along inseam from crotch seam to unfinished bottom of legs.5/ Knee. Twice the measurement taken from folded edge to folded edge across the width of slack leg at a point up from unfinished bottom of leg as follows: Short - 19-1/2 ($\pm 1/4$) inches; Regular - 20-1/2 ($\pm 1/4$) inches; Long - 21 ($\pm 1/4$) inches.

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- 6/ Bottom. Twice the measurement taken from folded edge to folded edge across unfinished bottom of leg.

3.8 Workmanship. The finished slacks shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the applicable acceptable point value or defect limit.

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 (examinations and tests) as specified herein. Except as otherwise specified in the contract, or purchase 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 supplies and services conform to the prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection as part of manufacturing operation is an acceptable practice to ascertain conformance to requirements, however this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

4.1.3 Certificate of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

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

1. First article inspection (see 4.4).
2. Quality conformance inspection (see 4.5).

4.3 Inspection conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in MIL-STD-656.

4.4 First article inspection. When first article is required, inspection shall be made of a completely fabricated pair of slacks for all provisions in this specification.

4.5 Quality conformance inspection. Inspection shall be performed in accordance with MIL-STD-656.

4.5.1 Testing of components. Testing of components shall be in accordance with the applicable subsidiary specifications and standards to the extent applicable, except that this specification shall govern in the event of conflict. The method of testing shall be as specified in FED-STD-191, wherever applicable. Testing shall be performed on components listed in Table III for characteristics noted. A certificate of compliance will be acceptable for the plastic coil slide fastener requirements of 3.3.7.2. In addition, the requirements that all components of the slide fastener have been furnished by one supplier shall be accepted on a certification of compliance (see 3.3.7.1).

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TABLE III. TEST METHODS

Components	Characteristics	Req. para	Test method	Determination	
				sample unit	Results reported as:
Lining	Material identification	3.3.3	1530	1	Pass or fail
	Weight-oz/sq. yd.	3.3.3	5041	5	Pass or fail
	Breaking strength- lbs:				
	- warp	3.3.3	5100	5	Average of the 5 det in each direction to the nearest 1.0 lb.
	- filling				
	Tearing strength- lbs:				
	- warp	3.3.3	5134	5	Average of the 5 det in each direction to the nearest 1.0 lb.
	- filling				
	Yarns per inch (min.)				
	- warp	3.3.3	5050	5	Average of the 5 det in each direction.
	- filling				
	Shrinkage	3.3.3	See 1/	1	Pass or fail
	Weave	3.3.3	Visual	1	Pass or fail
	Acidity (pH)	3.3.3	2811	5	Average of the 5 det

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1/ Determination of shrinkage. Shrinkage shall be determined in accordance with Method 5558 except that the specimen shall be 22 inches by 22 inches without slits, soaked for 1 hour, and if an extractor is not available, the excess water shall be removed by wrapping the specimen in a towel or similar material and squeezed by hand. Wringing by hand or passing the specimen between squeeze rollers is prohibited. The extracted specimen shall be dried by pressing at a temperature not to exceed 275°.

4.5.2 In process inspection. Inspection shall be performed during the manufacturing of the end item to ascertain that the operations are performed as specified herein. The Government reserves the right to determine the acceptability of construction methods not performed in accordance with specified requirements for operations or subassemblies.

4.5.3 End item examination. Samplings and examination of the end item shall be performed for dress (D) slacks in accordance with the provisions of MIL-STD-656.

4.5.3.1 Finished measurement examination. The provisions for the finished measurement examination of the finished slacks shall be as specified in MIL-STD-656 and as outlined in 3.7.

5. PACKAGING

5.1 Preservation. Preservation shall be in accordance with ASTM-D-3951.

5.2. Packing. Slacks preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

6. NOTES

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

6.1 Intended use. The slacks described herein are intended for wear by female personnel of the U. S. Marine Corps.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Classes, sizes and lengths required (see 1.2).
- c. Whether first article is required (see 3.2).

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6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209 and the requirements of this specification. The sample(s) presented for inspection may be first articles, preproduction samples, first production of sample(s) taken from the first lot depending on the contractors history and will be as directed by the Contracting Officer. The Contracting Officer should include specific instructions in all acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.

6.4 Subject term (key word) listing.

Female
Pants

6.5 Figures. Figures are furnished for information purposes only. To the extent of any inconsistencies between the written specification and the figures, the written specification shall govern.

Preparing Activity
Navy - MC
Project No 8410-N879

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
MIL-S-29479 (MC)

2. DOCUMENT DATE (YYMMDD)
950804

3. DOCUMENT TITLE

SLACKS, WOMEN'S

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)
(1) Commercial
(2) AUTOVON
(if applicable)

7. DATE SUBMITTED
(YYMMDD)

8. PREPARING ACTIVITY

a. NAME

b. TELEPHONE (Include Area Code)

COMMANDER, ATTN PSE, MARCORSYSCOM

(1) Commercial (2) AUTOVON
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