

No. IV-21011/41/2009-Prov-I
Government of India
Ministry of Home Affairs

26, Man Singh Road, Jaisalmer House,
New Delhi, 16.11.2009

To

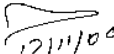
The DGs: Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D

Subject:- Up- gradation of specifications for the CTS items-regarding

The specifications, up-graded/framed by the DGS&D, for the following CTS items, have been accepted by the Competent Authority in MHA:-

- (1) Jersey Woolen 'V' Neck Dyed -Annex-'A'
- (2) Vest Full Sleeve -Annex-'B'
- (3) Ankle Boot Rubber Sole (Jungle Boot)- Annex-'C'
- (4) Boot High Ankle DVS (Improved version)- Annex-'D'

2. Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down up-graded specifications of the said CTS items..


12/11/09
(R.S.Sharma)
Director (Prov)

Copy to:-

DD(Procurement),MHA

Copy for information to:-

PS to JS(PM),MHA

Annexure - A

GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF SUPPLIES & DISPOSALS
JEEVAN TARA BUILDING, 5- SANSAD MARG
NEW DELHI-110001

DRAFT SPECIFICATION
FOR
JERSEY WOOLLEN 'V' NECK DYED

1-FOREWARD-

This specification is prepared taking assistance of specification no-G/TEX/W-69/1992, AIR HQ/DQAS/AC-017 & IS: 2360-1977 and the experience gained by the department during the past years.

2-SCOPE-

This specification caters to the need of paramilitary forces and various police organizations. This standard prescribes the constructional details & other particulars of jersey woollen v neck dyed.

3-MATERIAL-

3.1 Jersey shall be manufactured from the following materials.

Sl. No	Components	Materials	Particulars
a	Body & Sleeves	Basic knitted fabric dyed	Worsted yarn 55 Tex x 2
b	Reinforcement of sleeves, shoulder, shoulder straps & pen pockets	Cloth polyester viscose	As per IS: 11248-1995 amdt. No-2 September 1999
c	Stitching	Thread sewing spun polyester 145 dtex x 4 variety no-7	IS:9543-1980.
d	Linking	Worsted yarn 55tex x 2	-
e	Over-locking	Worsted yarn 55tex x 2	-
f	Buttons	Button plastic 13 mm	IS:1461-1984

4-MANUFACTURE-

4.1 The body and sleeves shall be knitted independently from worsted yarn of 55 tex x 2 in 2 x 2 rib knit. The cuffs and bottom rib shall be knitted integrally and tightly to

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achieve the desired rib-effect. The fabric shall be uniform in shade, texture, and appearance and free from knitting flaws. The cuffs and bottom rib shall contain at least two strengthening rounds.

- 4.2 The jersey shall be fabricated to the required size and dimensions as given in appendix 'B'. The shape and design of the jersey shall be as shown in the drawing attached (Fig. 1 & 2) to this specification. The total rib cuff shall be 17 cms in length and shall be joined on upper side by flat-lock linking machine and shall be free from protrusions and looseness.
- 4.3 The neck opening shall be 'V' shape overlapping at the bottom keeping the left side welt on upper side at about 45 degree angle. The neck welt shall be of 2 x 2 rib knit of body material and shall be 3 cm wide in double fold. The welt shall be secured to the body by linking.
- 4.4 The jersey shall be provided with two shoulder straps. The seam of shoulder (inside top portion) shall be made with overlook stitching and finally with seam covering machine throughout the shoulder seam. In case the neck welt is secured with linking, the overlook stitching of the shoulder shall be completely covered with reinforcement material for strengthening. The shoulder seam and arm pit shall be strengthened with polyester viscose cloth of required shade. Button plastic provided on shoulder at 2 cm away from the neck welt and a button hole shall also be provided one on each shoulder strap 6 mm away from the edge of open end.
- 4.5 Two pen pockets on the upper arm of left sleeve shall be provided with polyester viscose cloth of required shade. The base of these pockets shall be 15.5 cm in length and 6 cms in width. The pockets shall be 12.5 cm in length and 3 cm in width. The base fabric shall be 8 cm down from shoulder straps joint.
- 4.6 The shoulder and sleeves at elbow shall be reinforced with polyester viscose cloth as shown in the drawing. The shoulder reinforcement shall be extended on front and back equally to a depth of 11 cm and shall be in one piece without seam/joint on shoulder top. One side of each shoulder reinforcement piece shall be stitched along with joint of body and sleeves.
- 4.7 Stitching of shoulder reinforcement, sleeves reinforcement, shoulder straps and pen pockets shall be done with lock stitching with thread sewing spun polyester of required shade regulated at 4-5 stitch per cm.
- 4.8 Overlook stitching/linking and seam covering shall be done with one worsted thread as used for knitting in conjunction two threads of thread sewing spun polyester. The stitching tension shall be even throughout with all loose ends fastened and trimmed off. The number of stitches per centimeter shall not be less than 4 at any place.
- 4.9 The seams and joints shall withstand stretching in all directions to the full extent of the knitted fabric without breaking or allowing the loop of knitted fabric to run.



5 REQUIREMENTS-

5.1 Jersey shall conform to dimensions and mass as per appendix 'B'. Other requirements shall be as follows:-

S.No	Characteristics	Requirements	Tolerance	Method of Test
a	Composition	All Wool		IS:2006-1998(on dry mass)
b	Wool Quality, (when determined from finished jersey)	64 s as per IS:5911-1977(except clause 1.2)	-	IS:744-1977
c	NO of Wales/DM on either surface	i-Body-30(15 x 2 visible rib) ii-Cuffs & Bottom Ribs-40(20 x 2 visible rib)	-	As per clause A-4 of IS:2360-1977
d	NO of courses/DM on either surface	(i) Body-60 (ii) cuff & Bottom Rib-60	± 2 ± 2	As per clause A-4 of IS:2360-1977
e	Scouring Loss %	4.0	Max.	As per clause A-6 of IS:2360-1977
f	Dimensional Change(Due to relaxation)	5.0	Max	A-5 of IS:2360-1977
g	PH Value	5 to 7.5		IS:1390-1983(cold method)
h	Colour Fastness to (i) Light (ii) Washing	5 or better 4 or better		IS:2454-1985 IS:3361-1979(test -2)
i	Breaking load of yarn worsted 55 tex X 2 taken out of knitted fabric(50 cm grips) in Gms.	550.0	Min	IS:1670-1991

5.2 Sealed Sample— If in order to illustrate or specify the indeterminate characteristics such as general appearance, colour, feel and type of finish, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respect.

5.3 Custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

6. MARKING

6.1 A suitable cloth label, white in ground, shall be securely attached to each jersey on the inside of the neck opening (back side) on which the following details shall be woven with a fast dyed thread of contrasting shade:

- a) Name of the material;
- b) Size;
- c) Fibre composition;
- d) Manufacturer's name, initials or trade mark, if any, and
- e) Any other information as required by the buyer.

7. PRESERVATION

7.1 The jerseys shall be preserved with anaphthalene using a minimum quantity of 5 kg per cubic metre of volume of the bale.

8. PACKING

8.1 Jerseys of the same size and shade shall be packed in each man's bale in accordance with IS: 2518-1964* or IS: 3363-1966† as they may be.

8.2 Alternatively, the jerseys may be packed by the method given below when specifically agreed to between the buyer and the seller.

Ten jerseys of the same size and shade suitable for men shall be tied with twine or string to form a bundle. Five such bundles shall

*Code for seaworthy packaging of wool-hosiery yarn and goods.
†Code for inland packing of wool-hosiery yarn and goods.

be wrapped with inner layer of polyethylene film of minimum 40 microns (see IS : 2508-1963*) or kraft paper (see IS : 1397-1967†) and an outer layer of heavy cc. cloth (see IS : 3751-1966‡) or equivalent hessian cloth to form a rectangular bale weighing approximately 35 kg. The overlaps of the inner layers shall be at least 10 cm to ensure full protection to the contents of the bale. The overlaps of the outer layer of heavy cc. cloth or hessian shall be such that it can be properly and securely sewn around the bale. The bale shall be stitched with double 3-ply jute twine with not less than 12 stitches per decimetre taking care not to pierce the inner wrapping during stitching. Sufficient heavy cc. cloth or hessian shall be pulled out at each corner to form 'ears' of about 15 cm in length. The bale shall be made secure by fastening with at least two bands of steel strips (or hoops) or metal wires in each direction along the length and the width of the bale.

9. SAMPLING

9.0 The sampling procedure given below shall give due full protection to the buyer and the seller provided that the lot submitted for inspection is homogeneous. To achieve this the manufacturer shall maintain a system of process control at all stages of manufacture and shall ensure that the jerseys tendered by him for inspection comply with the requirements of this standard in all respects.

Note — For effective process control the use of statistical quality control techniques is recommended and a helpful guidance may be obtained in this respect from IS : 397 (Part I)-1972§.

9.1 Lot — In any consignment all jerseys of the same size, colour and composition of fibres delivered to a buyer against one despatch note shall constitute a lot.

9.1.1 The conformity of the lot to the requirements of this specification shall be determined on the basis of the tests carried out on the samples selected from it.

9.2 Unless otherwise agreed to between the buyer and the seller, the number of jerseys, depending upon the size of the lot, shall be selected at random in accordance with col 2 of appendix A.

*Specification for low density polyethylene films.
†Specification for kraft paper (first revision).
‡Specification for heavy cc. cloth.
§Method for statistical quality control during production: Part II Control charts variables (first revision).

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Appendix (A)

**NUMBER OF JERSEYS TO BE SELECTED FROM A LOT AND
PERMISSIBLE NUMBER OF NON-CONFORMING JERSEYS**

(Clauses 9.2 and 9.3)

NUMBER OF JERSEYS IN THE LOT	NON-DESTRUCTIVE TESTING		DESTRUCTIVE TESTING	
	Number of Jerseys to be Selected	Permissible Number of Non-conforming Jerseys	Number of Jerseys to be Selected	Permissible Number of Non-conforming Jerseys
(1)	(2)	(3)	(4)	(5)
Up to 300	10	1	2	0
301 to 500	20	1	3	0
501 to 1000	30	2	5	0
1 001 to 3000	50	3	8	0
3 001 and above	80	5	13	1


9.3 The sample size and criteria for conformity for various characteristics shall be as follows:

Characteristic	Number of Tests	Criteria for Conformity
Freedom from defects, dimensions and number of Wales and courses	All the jerseys selected according to col 2 of Appendix(A)	Non-conforming jerseys not to exceed the corresponding number given in col 3 of Appendix(A)
Mass	do	Each observed value to satisfy the specified requirement.
Specification for wool tops, breaking load of knitting yarn, dimensional change, scouring loss, pH value, colour fastness to washing fibre composition.	All the jerseys selected according to col 4 of Appendix(A)	Number of non-conforming jerseys not to exceed the corresponding number given in col 5 of Appendix(A)
Colour fastness to Light	One in case of lot size of 500 jerseys and two above that	Each jersey to satisfy the specified requirement

DIENSIONS AND MASS

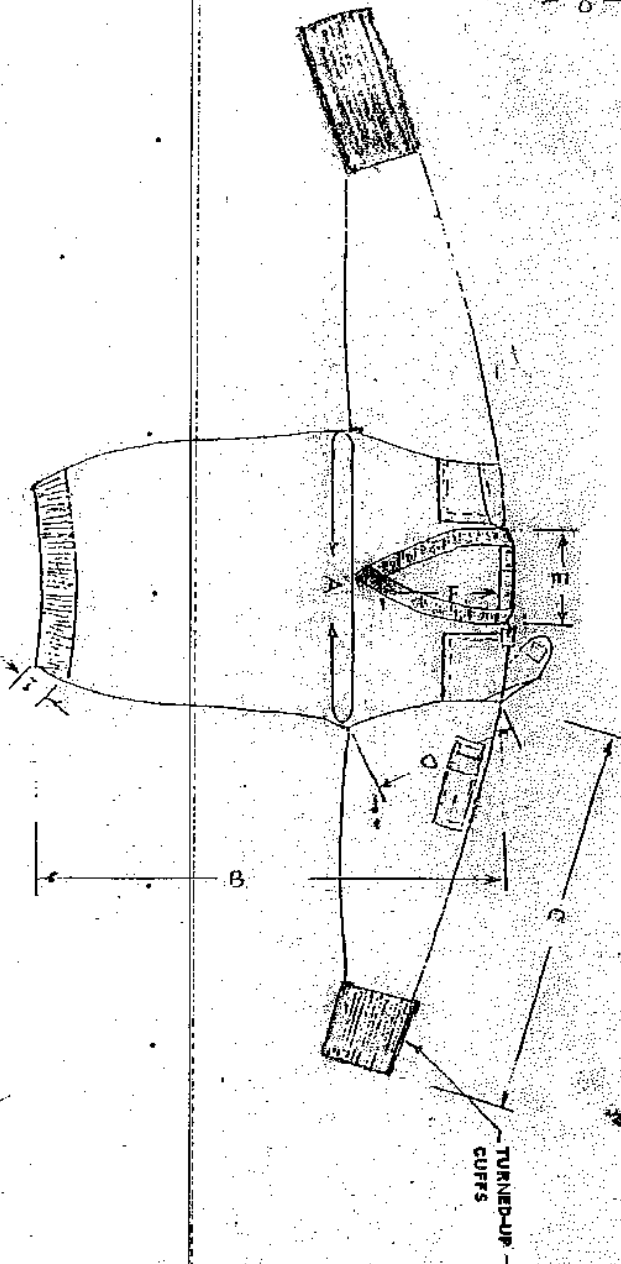
Appendix B

Size	Round Chest	Length of Body	Total Length of sleeves including turned up cuff	Width of arm hole	Width of neck opening	Depth of neck opening	Width across shoulder (Top)	Length of turned up cuffs	Depth of bottom ribs	Mass per jersey in grams
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
85	75	64	48	20	16	15	36	8.5	6.5	560
90	80	68	51	21	16	15	38	8.5	6.5	590
95	85	70	54	22	16	15	40	8.5	6.5	620
100	90	72	57	23	16	15	42	8.5	6.5	650
105	95	74	60	24	16	15	44	8.5	6.5	680
110	100	76	63	25	16	15	46	8.5	6.5	710
115	110	78	66	26	16	15	48	8.5	6.5	740
TOL.	+4	+2	+2	+2	±1.0	±1.0	±1.5	-	-	15
IN%	.2	-1	-1	-0.5						2.5


 Director, Quality Assurance
 The Institute of Standards
 for Pakistan (Quality Assurance)

JERSEY WOOLLEN

FRONT VIEW



A
गुणवत्ता और मूल्य
को ध्यान में रखकर
इस डिजाइन को विकसित
किया गया है।
एन. वी. ए. सी. (एन. वी. ए. सी.)
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JERSEY WOOLEN

BACK VIEW

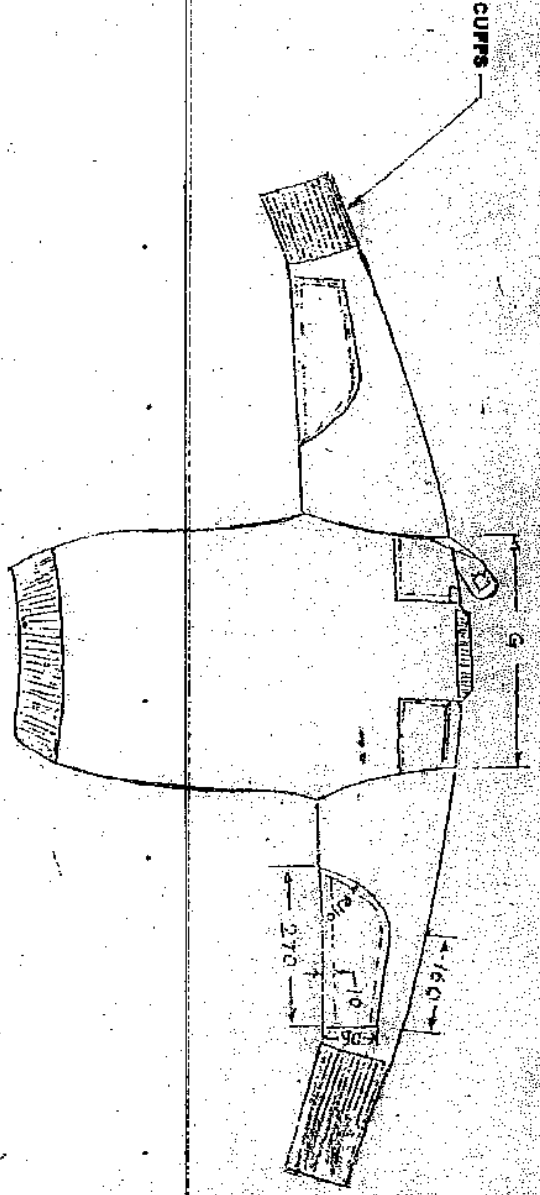


FIG. 2

THE PATENT OFFICE
OF THE UNITED STATES
DEPARTMENT OF COMMERCE
WASHINGTON, D. C.