



PAKISTAN NAVY SPECIFICATION 03/2018

PROMULGATION DATE: 26 April 2018

DIGITAL CAMOUFLAGE **DRESS PAK MARINES** **60% COTTON - 40% POLYESTER**

Prepared by:

Directorate of Indigenous
Technical Development
at NSSD, West Wharf Road
KARACHI
Tel: 021 48508410
Fax: 021 99214765

AMENDMENT RECORD

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REVISION NOTE

The specification has been prepared to bring the test methods and procedures into line with up-to-date PN requirements and facilities held in Pakistan. CINS may request to amend any test requirement/ test procedure in light of the experience emanating from its inspection history, through the feedback form placed at Annex J. However, such an alternation will be effective when the amendment is promulgated by this Directorate, and will be effective on the contracts which materialize after the promulgation date of respective amendment.

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1. **DESIGNATION**

1.1 Digital Camouflage Dress Pak Marines 60% Cotton - 40% Polyester (Bush Jacket, Trouser, PAK NAVY Soft Tally and Camouflage Jockey Cap).

2. **USAGE**

2.1 This dress will be used by Officers, CPOs and Sailors of Pakistan Navy vide NHQ letter PN/NS Dte/03/878204 dated 30 Nov 17.

3. **INTRODUCTION**

3.1 This specification is prepared by Directorate of Indigenous Technical Development, Karachi, to provide necessary guidance to the potential manufacturers/ suppliers of the items mentioned herein. This specification is to be used for testing and deciding upon acceptance, or otherwise, of the items mentioned. Any alteration or addition in this specification can be suggested to ITD Directorate. However, it cannot be implemented without prior approval of DITD. This specification supersedes and replaces PN Specifications No. 11/2014 and PN Specification 04/2017 promulgated earlier in relation to the items mentioned herein.

3.2 This specification booklet includes 09 Annexes, and consists 33 pages, including the cover.

4. **SCOPE**

4.1 This specification covers the manufacturing / inspection requirements of cloth made from Poly cotton blend to be used in the manufacturing of uniform, namely Digital Camouflage Dress Pak Marines 60% Cotton-40% Polyester (Bush Jacket & Trouser) to be used by personnel of Pakistan Navy. This specification lays down the standard to which the stores shown under designation above should conform. It defines and lays down the quality, standard and details of materials, workmanship and finish. It also lays down the details of sampling, testing, inspection rejection, marking, preservation, packing and delivery etc.

4.2 The supplier/ manufacturer shall comply in every respect with the terms of this specification and ensure that the stores conform to it, in all respects.

5. **RELATED DOCUMENTS**

5.1 The standards and documents that have been referred to in this specification are:

a.	ISO 1833	Textile – Quantitative chemical analysis
b.	ISO-3801	Determination of mass per unit length and area
c.	ISO-7211/2	Determination of number of threads per unit length
d.	ISO-7211/5	Determination of linear density of yarn removed from fabric
e.	ISO-105-C03	Color fastness to Washing test No. 3
f.	ISO-105-E02	Color fastness to Seawater test
g.	ISO-105-X12	Color fastness to Rubbing test
h.	ISO-105-E04	Color fastness to Perspiration
j.	ISO 13934-01 1999	Textile- Tensile properties of fabrics (strip method)
k.	ISO 13937-01 1999	Textile- Tear properties of fabric (Elmendorf)
m.	AATCC 128-2009	Wrinkle Recovery of fabric
n.	AATCC 79-2010	Absorbency of Textiles
o.	ISO 9237:1995	Determination of permeability of fabric to air
p.	AATCC 195:2010	Test for evaluation of Moisture Management
q.	ASTM D 1230	Flammability of Apparels

- | | | |
|-----|-------------------|--|
| r. | ISO 6330 (3A) | Domestic washing and drying procedures for textile testing |
| s. | BS EN ISO 12945-2 | Determination of fabric propensity to surface fuzzing and to pilling |
| t. | BS EN ISO 12947-4 | Determination of the abrasion resistance of fabrics by the Martindale method |
| u. | BS EN 25077 | Determination of Dimensional Change in washing and drying |
| v. | ISO 3071 | Determination of pH of aqueous extract |
| w. | AATCC 16 option 3 | Colorfastness to light |
| x. | BS 4162 | Methods of test for buttons |
| y. | AATCC 133 | Colorfastness to hot press |
| z. | ASTM D 5171 | Standard test method for impact resistance of plastic sew through buttons |
| a1. | ASTM D5169 | Dynamic shear strength of hook and loops touch fastener (Velcro) |
| a2. | ASTM D 5170 | T Peel Strength of hook and loop touch fastener (Velcro) |

6. **TERMS & DEFINITIONS**

6.1 Definitions for the terms used in this standard are given at Annex G.

7. **TECHNICAL DETAILS FOR DIGITAL CAMOUFLAGE DRESS PAK MARINES 60% COTTON- 40% POLYESTER**

7.1 The technical details of Digital Camouflage Dress Pak Marines 60% Cotton- 40% Polyester is given at Annex A of this specification.

8. **MANUFACTURING DETAILS FOR DIGITAL CAMOUFLAGE DRESS PAK MARINES 60% COTTON- 40% POLYESTER**

8.1 Manufacturing details of Digital Camouflage Dress Pak Marines 60% Cotton - 40% Polyester will be as per Annex B of this specification.

9. **QUALITY OF WORKMANSHIP AND FINISHING**

9.1 Workmanship and finish of the Digital Camouflage Dress Pak Marines shall be equal to the sealed sample. It shall be best of its class and to the entire satisfaction of the inspector.

10. **TESTING**

10.1 The material shall be subjected to tests laid down in this specification at Annex A of this specification and related documents. At least one complete dress and 03 meter fabric will be required to complete all the tests mentioned at Annex A of this specification. The material may also be subjected to such tests which are deemed necessary by the inspection authority in order to determine their suitability. Inspecting Authority reserves the right to get any B/R samples tested from any reputable laboratory other than PN. However, any test considered important by Inspecting Authority other than Annex A may also be conducted in order to check its suitability.

11. **TENDER SAMPLE**

11.1 Tender sample to be approved by INS

11.2 For each contract following material shall be supplied by the manufacturer at the time of tendering.

- | | | | |
|----|------------------|---|----------|
| a. | Finished Garment | – | 03 Nos. |
| b. | Fabric | – | 05 Meter |
| c. | Fused Buckram | – | 01 Meter |

d.	Buttons	–	05 Nos.
e.	Stitching Thread	–	50 Grams
f.	Velcro	–	0.5 meter
g.	Waist adjustment Tape	–	02 No.s

12. **ADVANCE SAMPLE**

12.1 Advance sample or pre-production sample, when required, shall be submitted in accordance with terms of the contract for inspection, testing and approval by CINS. The minimum quantities required are 05 dresses along with samples of materials used in manufacturing of garments for inspection.

12.2 Whenever Tender, Advance or pre-production sample is not required, the suppliers / manufacturer are advised in their own interest to submit to the Inspecting Officer or his representative an initial delivery of One % of the contract or ten dresses, whichever are more along with samples of materials for inspection.

12.3 The approval of the sample mentioned in Para 11 & 12 authorizes the commencement of bulk production but does not relieve the suppliers/ manufactures from compliance with all the provisions of this specification. One approved sample shall be properly sealed by INS and returned to the firm for guidance; rest of the approved sample shall be retained by INS for future use in bulk Inspection.

12.4 The Pre-production sample shall be manufactured by the manufacturer with the same facilities which will be used for manufacturing of the bulk items.

12.5 Firm shall provide advance sample along with quality verification reports of fabric from an accredited laboratory to ensure in process inspection/ quality procedure of the firm.

13 **INSPECTION**

13.1 **Bulk representative sample** B/R random sampling will be carried out as per rules in vogue.

13.2 **Bulk Inspection** Bulk inspection will be carried out after satisfactory completion of Visual Examination and Testing of B/R Sample.

13.3 **Inspection of Store** 100% of the offered store shall be inspected. The guide lines for such examination/inspection are listed at Annex H. Stage inspection of Dresses be carried out as deemed appropriate.

13.4 **Inspection/ Acceptance and Rejection of Stores** Inspection/ acceptance is to be carried out to the satisfaction of Chief Inspector Naval Stores.

13.5. The dresses shall be examined for the correctness of material, shape, design, dimension, size, workmanship and finish.

13.6. All dresses shall be inspected w.r.t defective shape, discoloration/ fading, pinholes, closing of dresses are to be especially checked.

13.7. CINS reserves the right to reject the whole supply in case, upon examination, material or packing of any sample or portion of the consignment is found NOT CONFORMING to this specification.

13.8. If on examination of 5% of any delivery, 20% of those examined from bulk supply are found NOT CONFORMING to this specification in respect of the pattern, dimensions, workmanship and finish, the whole consignment may be rejected without any compromise.

13.9. All stores and packing NOT fully in accordance with this specification shall be rejected.

13.10. Dresses with major defects as described in Annex H of this specification will be rejected.

13.11. **Responsibility for Inspection** The supplier is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. PN reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

13.12 **Responsibility for Compliance** The inspection set forth in this specification shall become a part of the supplier'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 ensuring that all products or supplies submitted to PN for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, 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 PN to acceptance of defective stores (material).

13.13 **Replacement by the Contractor** The supplier/ manufacturer is responsible for replacement of the consignment or any part thereof whenever it is found to be not conforming to this specification. The supplies so tendered in replacement, shall be subjected to testing/Inspection and acceptance by the Inspecting Officer.

13.14 **Responsibility for Safety** The supplier/manufacturer is wholly responsible for the safety of supplies during inspection, storage at firm's premises, proper packing, dispatch and delivery up to consignee.

14. **STAMPING OF ACCEPTED/ REJECTED STORES BY THE INSPECTOR** Following instructions are to be followed:

14.1 **Stamping of Accepted Stores** Each acceptable Dress shall be stamped with Inspector's Individual Acceptance Mark. The stamping shall be legible.

14.2 **Stamping of Rejected Stores** The rejected Dress shall be marked with Inspector's Rejection Mark to avoid re-submission by the supplier.

14.3 The Inspector is the authority in all matters pertaining to inspection.

15. **SPECIAL INSTRUCTIONS**

15.1 **CARE INSTRUCTIONS** Care instructions in English and Urdu shall be attached with each Dress as indicated in the drawing and have minimum requirement as follows:

- Washing procedure.
- Drying procedure.
- Any Prohibition.

16. **PACKING DETAILS** The store when ordered to be delivered 'PACKED' shall be packed as per following instructions:



- The Dresses shall be packed in a neat, dry and clean condition in standard polyethylene.
- 10 Dresses shall be further packed in a thick Boxboard.
- Each Box Board packing shall be securely and properly packed.
- Each box board shall consist of same size.

17. **IDENTIFICATION LABEL** Each Dress shall bear following minimum information mentioned on identification label, attached as indicated in the drawing:

- a. Item name/ item description with NSN/Pattern No.
- b. Material Composition and size
- c. Contract number and Date
- d. Year of manufacture
- e. Contractor's name, initials, or trade mark
- f. Batch no.

18. **PACKING LIST** Firm is bound to provide a packing list of store offered for inspection alongwith the challan, which include complete details about the store i.e Pattern No., Designation, quality packed, size, quantity, contract No, and Date, Challan No. and Date. A packing list shall be enclosed after completion of inspection with each packed box giving full details about the stores packed i.e. Pattern No., Designation, quality packed, size, quantity, contract No, and Date, I/Note No. or voucher No. and date, consignee, Consignor, Date of packing and packer's signature.

19. **MARKING OF STORES** In addition to any special marking required by contract or order, the marking of packages shall be stenciled with quick drying Black ink/ Paint in accordance with Specification No. NS/MISC/002/80 with clearly defined characters as described below:

- a. **On Front and Top**
 - (1) Catalogue No and Designation of the store packed.
 - (2) Contract No and date.
 - (3) Quantity of the Items packed.
- b. **On Back**
 - (1) Consignee address.
 - (2) Designation i.e Railway Station.
 - (3) Weight of the Package.
 - (4) The No. of individual Package and the total No of Packages in the consignment joined by the Word 'of 'e.g. 2 of 300.
- c. **On Bottom**
 - (1) Consignor's Name.
 - (2) Voucher No. or inspection note no. and date.
 - (3) Month and year of packing.

20. **DELIVERY**

20.1 The consignment of store will be delivered in accordance with the terms of contract.

20.2 The store shall be delivered in Brand new, clean and dry condition.

20.3 The contractor / manufacturer is fully responsible for the safety of the supplies during inspection, storage at firms premises proper packing, dispatch and delivery up to consignee.

XXXXSDXXX

AZHAR MIR

Commander Pakistan Navy

Director

Annexes:

- A. Technical details for Digital Camouflage Dress Pak Marines 60% Cotton - 40% Polyester
- B. Manufacturing details for Digital Camouflage Dress Pak Marines 60% Cotton - 40% Polyester
- C. Technical details of PAK Navy Soft Tally
- D. Manufacturing details of Pak Navy Soft Tally
- E. Technical details of Camouflage Jockey Cap / Sea Cap
- F. Manufacturing details of Camouflage Jockey Cap / Sea Cap
- G. Terms & Definitions
- H. Guidelines for Inspection – Specific Parts Defects
- J. Feedback Form

Distribution:

DP (N)

CINS

DNS

CO PNCSD

ANNEX A TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018

TECHNICAL DETAILS FOR DIGITAL CAMOUFLAGE DRESS PAK MARINES 60% COTTON - 40% POLYESTER

S NO	ITEM	REQUIREMENT
BASE FABRIC MATERIAL SPECIFICATION (RIBBED CAMOUFLAGE CLOTH)		
1.	Material	60% Cotton – 40 % Polyester
2.	Count of Yarn Warp Weft	20 ^s ± 2 (29.5 ± 2 Tex) 16 ^s ± 2 (37 ± 2 Tex) Ring spun Combed yarn shall be used
3.	Threads per Inch Warp Weft	123 ± 5 (Ends) 63 ± 5 (Picks)
4.	Colors Scheme Navy Dark Brown Light Brown Khaki Green Beige (Dye)	19-4027 TCX 19-0814 TCX 18-0930 TCX 16-0518 TCX 19-0315 TCX 14-0216 TCX Or As per approved sample held with CINS
5.	Weave Pattern	Twill weave 2/1 + Rip Stop
6.	Threads /Rip Warp Weft	2 each single 2 each single
7.	Size of Rip Warp Weft	6mm ± 1mm 6mm ± 1mm
8.	Weight (gm/sq.mtr)	245 gm ± 2%
9.	Finish	Mergerize, pre- shrink by sanforize and hydrophilic softener (nano finish)
10.	Finish width	59"
11.	Nature of Dye Ground Print	Vat disperse dye Vat disperse print
12.	Digital Camouflage Design Pattern	As per Appendix I and approved sample held with CINS
BASE FABRIC PERFORMANCE TESTING		
1.	Color fastness to washing a. Change in Shade b. Staining	GS: 4 or better GS: 4 or better
2.	Color Fastness to Rubbing (Dry) Staining	GS: 4 or better
3.	Color Fastness to Rubbing (Wet) Staining	GS: 3/4 or better
4.	Color Fastness to light Change in Shade	GS: 4 or better

5.	Color Fastness to perspiration a. Change in Shade b. Staining	GS: 4 or better GS: 4 or better
6.	Color Fastness to Sea Water a. Change in Shade b. Staining	GS: 4 or better GS: 4 or better
7.	Tensile strength (N) Warp Weft	1000 \pm 5% 800 \pm 5%
8.	Tear Strength(N) Warp Weft	44 \pm 5% 48 \pm 5%
9.	Flammability	Class1 Flame spread time \geq 3.5 sec
10.	Dimensional Stability test after 3 HL 40°C Warp Weft	\pm 2% \pm 2%
11.	Wrinkle recovery	Minimum 2
12.	Crease recovery	150° \pm 3%
13.	Appearance after 5-10 washes (3A) with tumble dry	Satisfactory
14.	Pilling resistance after 5,000 cycles	Grade 4/5
15.	Abrasion resistance after 6,000 cycles	No thread break
16.	Air permeability(mm/sec at 100 Pa)	Minimum 45
17.	Moisture Management	0.60 Min
18.	Water absorbency (drop test)	Front side 7 sec(max) Back side 6 sec (max)
19.	pH level	6-8

STITCHING THREAD SPECIFICATION

1.	Material	Polyester
2.	Construction	2 cord each single
3.	Count of yarn	2/31.5 Tex \pm 3%
4.	Breaking Strength (24")	2.23 Kg \pm 250 gms
5.	Shade	Green or Pantone 19-0315 TCX
6.	Color fastness to washing (Test No. 3) a. Change in Shade b. Staining	GS: 4 GS: 4

VELCRO TAPE MATERIAL SPECIFICATION

1.	Material Male Female	Nylon Nylon
2.	Color	Khaki or Pantone 16-0518 TCX

VELCRO TAPE PERFORMANCE TESTING

1.	1. Before sticking /unsticking 300 times at 300 g. 2. After sticking /unsticking 300 times at 300g.	Satisfactory Satisfactory
2.	Peel Strength (lbs per in width)	1.5
3.	Shear strength(PSI)	10

WAIST ADJUSTMENT TAPE

1.	Material	100% Cotton
2.	Color	Green or Pantone 19-0315 TCX

BUTTONS MATERIAL SPECIFICATION

1	Material	Plastic
2.	Color	Black Pantone # 19-4006 TCX

BUTTON PERFORMANCE TESTING

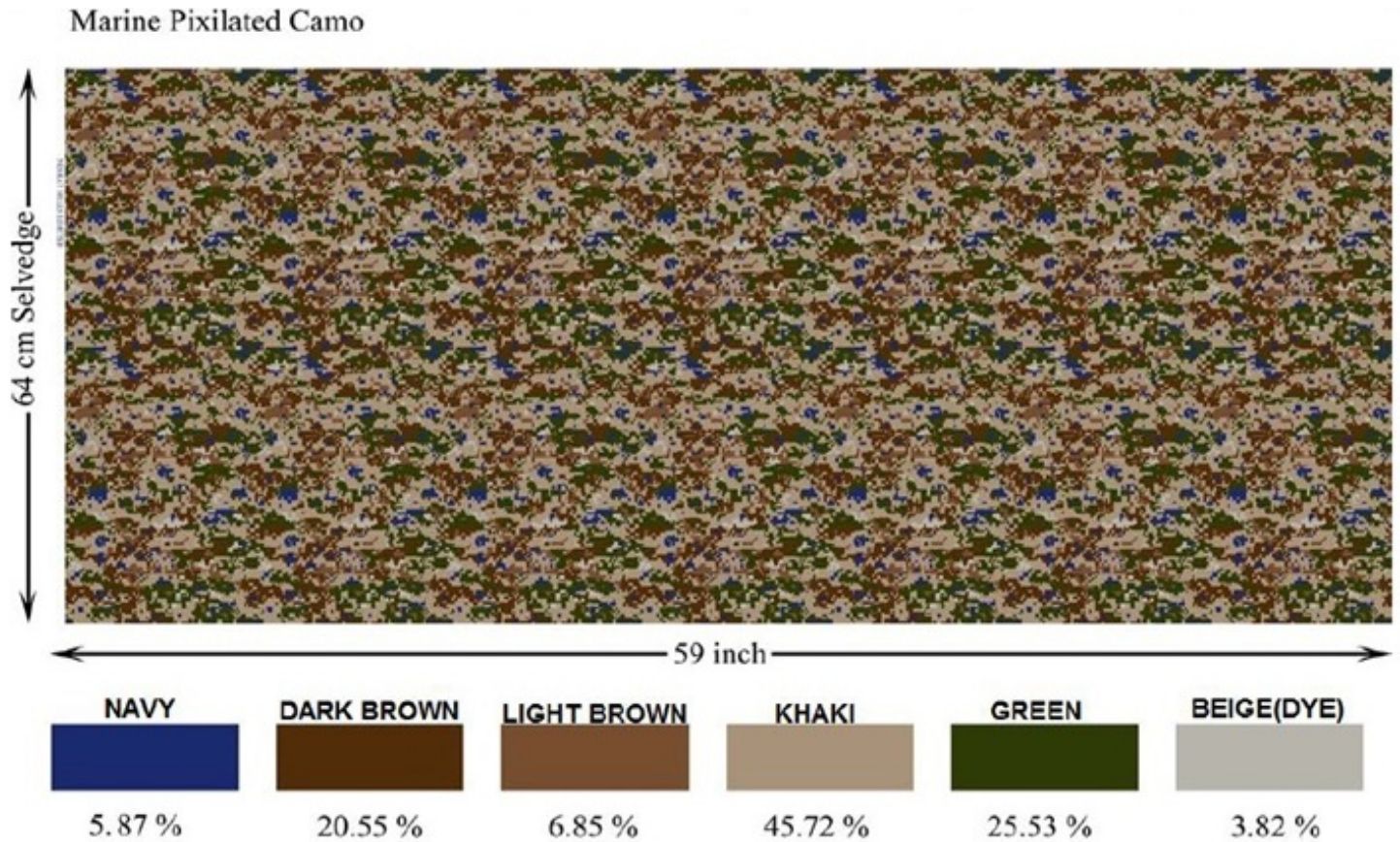
1.	Color fastness to water	GS 4 or better
2.	Pull test at 90 N	No crack, chips or breakage No structural failure No center break out
3.	Impact resistance	No crack, chips or breakage
4.	Color fastness to heat (hot pressing)	GS 4
5.	Appearance after washing	No color transfer on fabric

Appendix:

I. DIGITAL CAMOUFLAGE DESIGN/ PATTERN OF DRESS PAK MARINES

APPENDIX I TO ANNEX A TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018

DIGITAL CAMOUFLAGE DESIGN/ PATTERN OF DRESS PAK MARINES



ANNEX B TO
PN SPECIFICATION NO 03 2018
PROMULGATION DATE 26 April 2018

**MANUFACTURING DETAILS OF DIGITAL CAMOUFLAGE DRESS PAK MARINES 60%
COTTON - 40% POLYESTER**

1. Digital Camouflage Dress Pak Marines 60% Cotton-40% Polyester is to be manufactured as per measurement schedule and drawing at Appendix I and Appendix II respectively.
2. 'PAK NAVY' soft tally as per Annex C and D of this specification shall be attached above left chest pocket of Dress Pak Marines Jockey /Sea Cap shall be supplied as per Annex E and F.
3. The sewing/stitching thread should match with the green color i.e Pantone 19-0315 TCX and spun polyester.
4. In Bush jacket metallic air vents are placed at arm pits both side front and back and two in upper and lower side of each back pleat. Outer dia is 11mm and inner dia is 4.5 mm. Shade of anti rust anodized metallic brass air vents should match with the light brown color i.e. Pantone 15-4003 TCX.
5. Polyester Buttons used should be Mat finished, 4 holes with 19 mm dia (30) ligne with 4 mm thickness and black in color. Buttons of 16 mm dia with 4 mm thickness shall be used on shoulders only. The button is to be fastened with same matching black color thread with cross sewing neatly.
6. On bush jacket collar ends, pockets and flaps, front placket, sleeves loops and back pleats are to be reinforced with bartack.
7. In Bush jacket on back pleats, joint of front and back panels, sleeves, arm joint, shoulder, cuffs and elbow patch double needle stitching is required.
8. Bush jacket shall be 1" bottom hemmed.
9. Soft paper fusing shall be used in collar, front pocket flaps and shoulder flaps.
10. Buttonholes are to have at least 22 stitches per 2 cm and to be bar-tacked or taper barred.
11. In trouser fly, cross pockets, knee and seat patches, thigh pockets, and side and seat seam are to be double needle stitched.
12. On trouser on front cross pockets end, thigh pockets, pockets bag and its flaps and back pockets and its flap, waist loops inner side bartack shall be done.
13. Two spare buttons each for bush jacket and trouser be provided/ stitched on the garment.
14. Pocket lining of same camouflage fabric shall be used.
15. Bottom adjustment dori/ rope of same fabric shall be attached at bottom of trouser. One end of the dori/ rope shall be stitched with the trouser to avoid slippage of rope during washing.

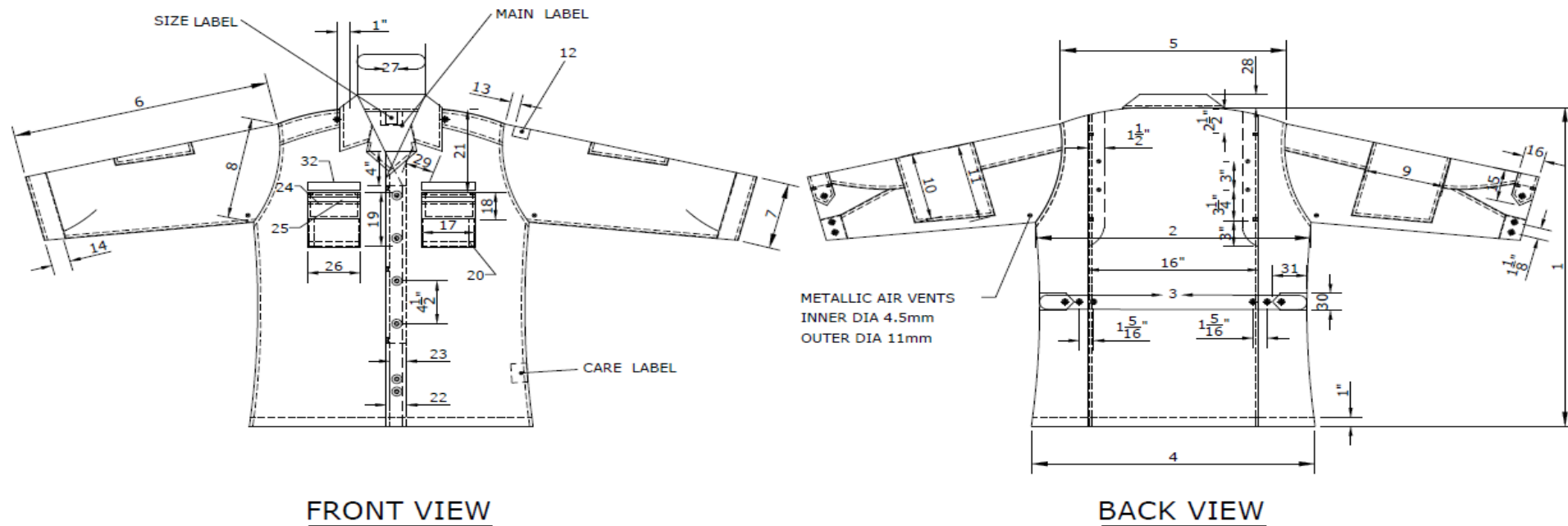
Appendices:

- I. MEASUREMENT SCHEDULE OF DRESS PAK MARINES BUSH JACKET AND TROUSER
- II. DRAWING OF DRESS PAK MARINES BUSH JACKET AND TROUSER

MEASUREMENT SCHEDULE OF DRESS PAK MARINES CAMOUFLAGE BUSHJACKET (INCHES)																		
SR	Description	XXS 34	XSF 36	XSL 36	SF 38	SL 38	MF 40	ML 40	LF 42	LL 42	XLF 44	XLL 46	XXL 48	XXL1 48	XXL2 50	XXL3 52	XXL4 54	TOL
1	Length from center back.	29.5	29.5	31	29.5	31	29.5	31	29.5	31	31	31	31	31	31	32	32	0.75
2	Chest.	20	21	21	22	22	23	23	24	24	25	26	27	27	28	29	30	0.5
3	Waist.	19	20	20	21	21	22	22	23	23	24	25	26	26	27	28	29	0.5
4	Bottom.	20	21	21	22	22	23	23	24	24	25	26	27	27	28	29	30	0.5
5	Shoulder.	16.75	17.25	17.25	18	18	18.75	18.75	19.5	19.5	20.25	20.25	21	21	21	21	21.5	0.25
6	Sleeve Length.	23.5	24	24.75	24	24.75	24.5	25.25	24.5	25.25	25	25.5	25.5	25.5	26	27	27	0.5
7	Sleeve opening.	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	0.375
8	Arm hole.	10	10.5	10.5	10.5	10.5	11	11	11	11	11.5	11.5	11.5	11.5	11.5	12	12	0.5
9	Sleeves patch length.	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	0.25
10	Sleeves patch width top.	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	0.25
11	Sleeve patch width bottom.	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	0.25
12	Flag Velcro size.	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	
13	Flag Velcro placement from shoulder seam.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	Cuff height.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.125
15	Sleeve loop height.	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.25
16	Sleeve loop Width.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.125
17	Front flap width.	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	0.25
18	Front flap height.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.125
19	Front pocket length including flap.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.25
20	Front pocket width	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	
21	Front pocket side box.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.125
22	Front pocket placement.	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0.25
23	Front placket width right side.	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	0.125
24	Front placket width left side.	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.125
25	Front pocket hem.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.125
26	Front pocket Velcro height.	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
27	Front pocket Velcro width.	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
28	Front pocket tally Velcro (width & Length).	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	
29	Collar.	15	15.5	15.5	16	16.5	16.5	16.5	17	17	17.5	18	18	18	18.5	19	19	0.375
30	Collar height from center back.	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	0.125
31	Collar corner.	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	0.125
32	Side loop width	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.125
33	Side loop length	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	0.125

MEASUREMENT SCHEDULE OF DRESS PAK MAIRNES CAMOUFLAGE TROUSER (INCHES)																		
SR	DESCRIPTION	XXS	XSF	XSL	SF	SL	MF	ML	LF	LL	XLF	XLL	XXL	XXL1	XXL2	XXL3	XXL4	TOL
		28	30	30	32	32	34	34	36	36	38	40	42	44	46	48	50	
1	Waist.	28	30	30	32	32	34	34	36	36	38	40	42	44	46	48	50	0.5
2	Hip (8in from belt)	37	39	39	41	41	43	43	45	45	47	49	51	54	56	58	60	0.5
3	Thigh	25	26	26	27	27	28	28	29	29	30	31	32	34	35	36	37	0.5
4	Bottom Knee on 13" from crouch.	21	21.5	21.5	22	22	22.5	22.5	23	23	23.5	24	24	24	25	25	26	0.25
5	Bottom	17.75	17.75	17.75	18	18	18.25	18.25	18.5	18.5	18.75	19	19	19	19	19	19	0.25
6	Inseam	33	31	33	31	33	31	33	31	33	33	33	33	33	33	33	33	1
7	Front rise include	11.25	11.5	11.75	11.75	12	12	12.25	12.25	12.5	12.75	13	13.25	13.25	13.5	13.75	14	0.25
8	Back rise	16.25	16.5	16.75	16.75	17	17	17.25	17.25	17.5	17.75	18	18.25	18.25	18.5	18.75	19	0.25
9	Front patch length	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	0.25
10	Front pocket opening waist	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	0.25
11	Front pocket side seam	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.25
12	Thigh pocket length	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9	9	9	9	9	9	9	0.25
13	Thigh pocket width	8	8	8	8	8	8	8	8	8	8.5	8.5	8.5	8.5	8.5	8.5	8.5	0.25
14	Thigh pocket flap height	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.125
15	Back pocket flap width	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0.25
16	Back pocket flap height	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.125
17	Back patch inside length	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	0.25
18	Waist belt	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.125
19	Thigh pocket placement	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	0.25
20	Belt loop length	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	0.25
21	Belt loop width bottom	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.125
22	Belt loop width top	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.125
23	Fly width	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.125
24	Fly length full	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.75	7.75	7.75	7.75	7.75	7.75	7.75	0.25

APPENDIX II TO ANNEX B TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018



FRONT VIEW

BACK VIEW

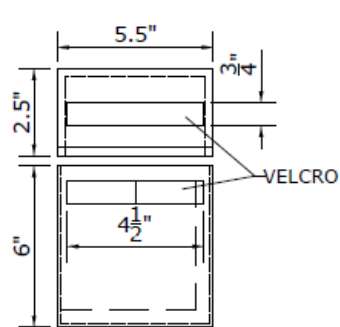
1220

			24	FRONT POCKET HEM	1	12	FLAG VELCRO SIZE	4/6 CM
			23	FRONT PLACKET WIDTH LEFT SIDE	1.75	11	SLEEVE PATCH WIDTH BOTTOM	7.25
			22	FRONT PLACKET WIDTH RIGHT SIDE	1.25	10	SLEEVE PATCH WIDTH TOP	8.5
			21	FRONT POCKET PLACEMENT	7.5	09	SLEEVE PATCH LENGTH	7.75
32	NAME TALLY	5.25 x1	20	FRONT POCKET SIDE BOX	1	08	ARM HOLE	11
31	SIDE LOOP LENGTH	3.5	19	FRONT POCKET LENGTH INCLUDING FLAP	7	07	SLEEVE OPENING	6.5
30	SIDE LOOP WIDTH	2	18	FRONT FLAP HEIGHT	2.5	06	SLEEVE LENGTH	24.5
29	COLLAR CORNER	2.25	17	FRONT FLAP WIDTH	5.5	05	SHOULDER	18.75
28	COLLAR HEIGHT FROM CENTER BACK	3.125	16	SLEEVE LOOP WIDTH	2	04	BOTTOM	23
27	COLLAR	16.5	15	SLEEVE LOOP LENGTH	2.75	03	WAIST	22
26	FRONT POCKET WIDTH	5.25	14	CUFF HEIGHT	2	02	CHEST	23
25	FRONT POCKET VELCRO	4.5 x0.75	13	FLAG VELCRO PLACEMENT FROM SHOULDER SEAM	1	01	LENGTH FROM CENTER BACK	29.5
S.NO	ITEM	INC	S.NO	ITEM	INC	S.NO	ITEM	INC

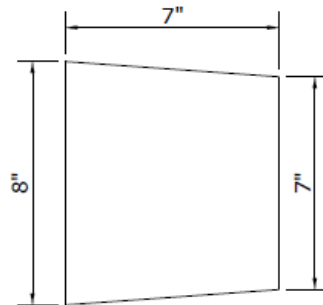
DESCRIPTION

NOTE:
FOR FURTHER DETAILS SEE SEALED STOCK SAMPLE.

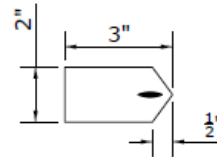
DITD KARACHI		
TITLE: SHIRT CAMOUFLAGE (MAIN BODY) SIZE- MF-40		
DWG.NO. TD-2412/2017	DIMENSIONS: INCHES	
DATE: 19-12-2017	SCALE: N.T.S	
DRAWN BY	CHECKED BY	APPROVED BY
--SD--	--SD--	--SD--
H.D/M M.ASGHAR I/c DWG	LT.CDR ASMA SOHAIL SO.R&D	CDR AZHAR MIR DITD



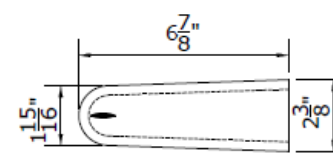
POCKET



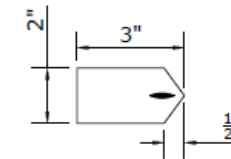
ELBOW PATCH



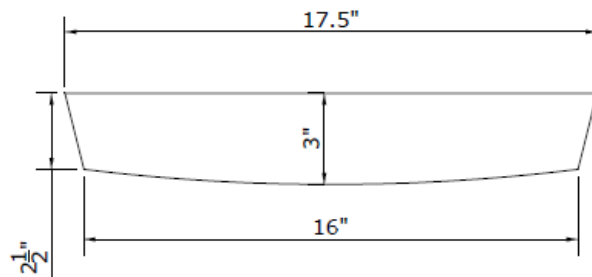
SIDE LOOP



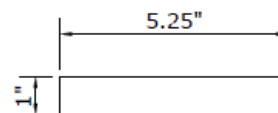
SHOULDER FLAP



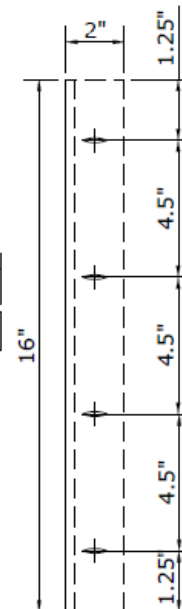
CUFF LOOP



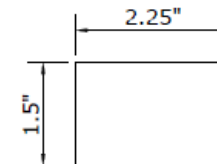
COLLAR



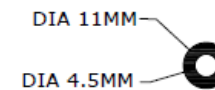
NAME TALLY



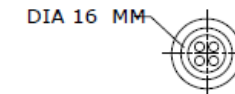
BUTTON HOLE TAG



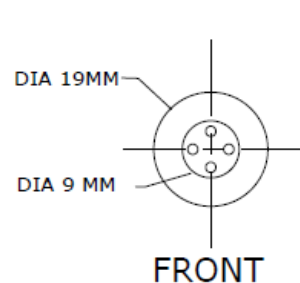
FLAG PATCH



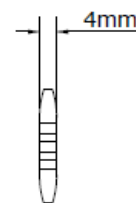
METALLIC AIR VENT



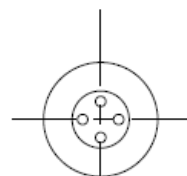
SMALL BUTTON



FRONT



SIDE



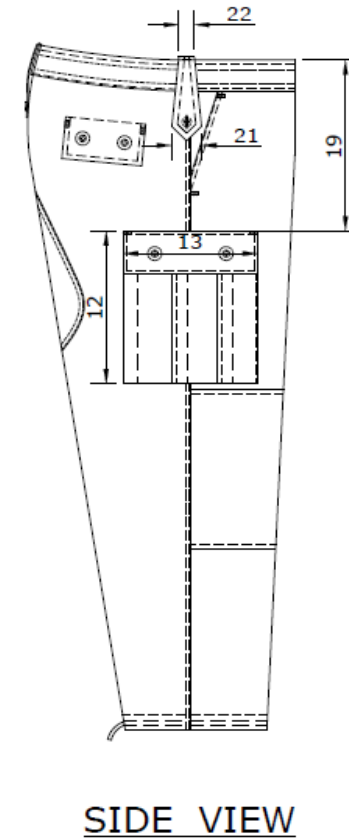
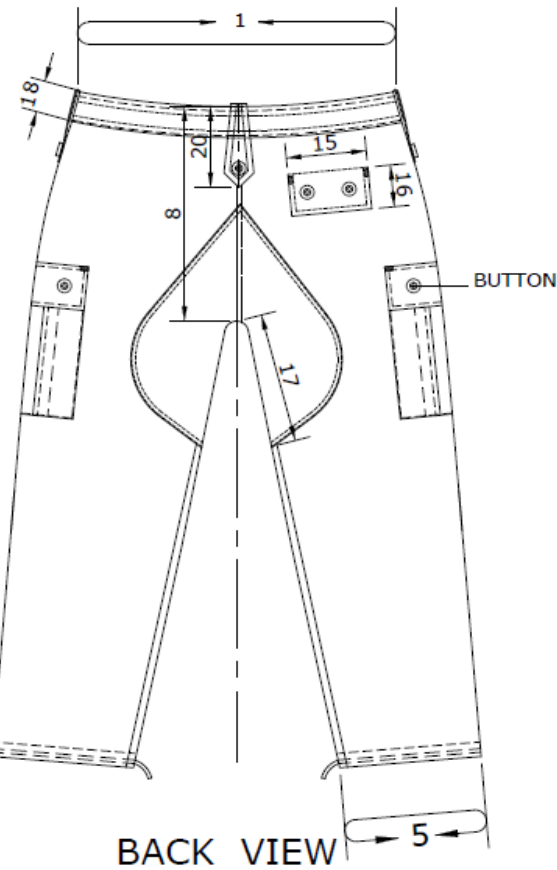
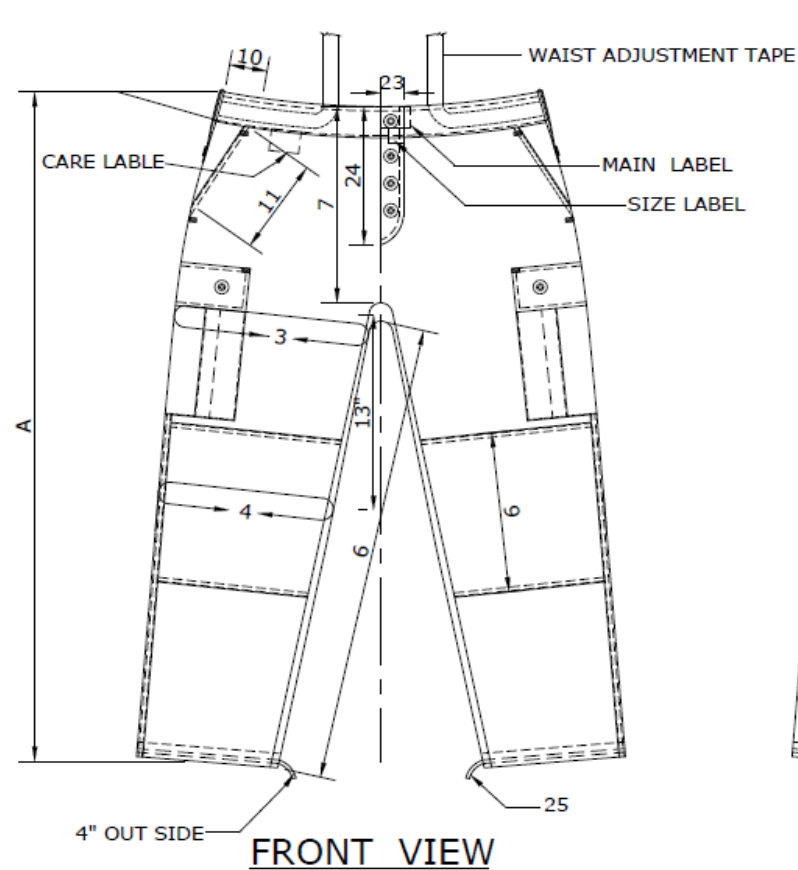
BACK

BUTTON SCALE:1:2

NOTE:
FOR FURTHER DETAILS SEE SEALED SAMPLE.

1221

DITD KARACHI		
TITLE: SHIRT CAMOUFLAGE		
(SMALL PARTS) SIZE:MF-40		
DWG.NO. TD-2413/2017	DIMENSIONS: INCHES	
DATE: 19-12-2017	SCALE: N.T.S	
DRAWN BY --SD-- H.D/M M.ASGHAR I/c DWG.	CHECKED BY --SD-- LT.CDR ASMA SOHAIL SO, R&D	APPROVED BY --SD-- CDR AZHAR MIR DITD



1222

NOTE:
FOR FURTHER DETAILS SEE SEALED SAMPLE.

			14	THIGH POCKET FLAP HEIGHT	2.75
			13	THIGH POCKET WIDTH	8
			12	THIGH POCKET LENGTH	8.5
25	BOTTOM ADJUSTMENT ROPE	2/8	11	FRONT POCKET SIDE SEAM	7
24	FLY LENGTH FULL	7.25	10	FRONT POCKET OPENING WAIST	2.25
23	FLY WIDTH	1.75	9	FRONT PATCH LENGTH	11
22	BELT LOOP WIDTH TOP	2	8	BACK RISE	17
21	BELT LOOP WIDTH BOTTOM	2	7	FRONT RISE INCLUDE	12
20	BELT LOOP LENGTH	4.75	6	INSEAM	31
19	THIGH POCKET PLACEMENT	10.5	5	BOTTOM	18.25
18	WAIST BELT	1.75	4	KNEE ON 13 FROM CROUCH	22.5
17	BACK PATCH INSIDE LENGTH	6.25	3	THIGH	28
16	BACK POCKET FLAP HEIGHT	2.5	2	HIP(8 FROM BELT)	43
15	BACK POCKET FLAP WIDTH	6	1	WAIST	34
S.NO	ITEM	INC	S.NO	ITEM	INC

DESCRIPTION

DITD KARACHI

TITLE:
TROUSER CAMOUFLAGE
SIZE:MF-34

DWG.NO. TD-2414/2017 DIMENSIONS: INCHES

DATE: 19-12-2017 SCALE: N.T.S

DRAWN BY

CHECKED BY

APPROVED BY

--SD--

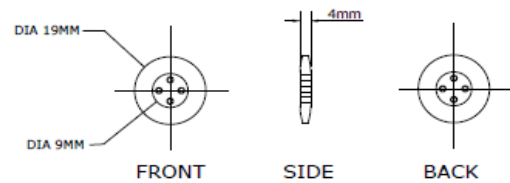
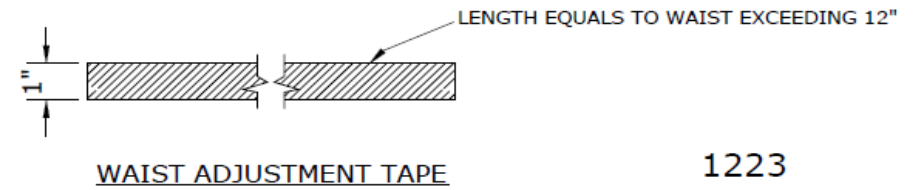
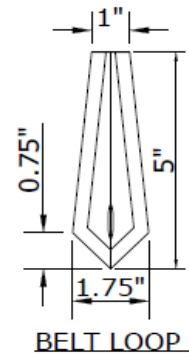
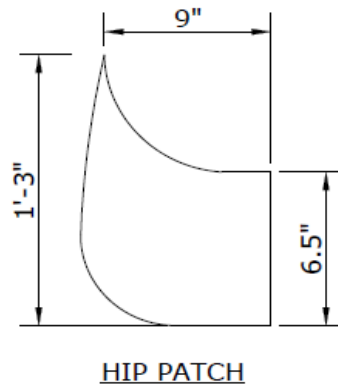
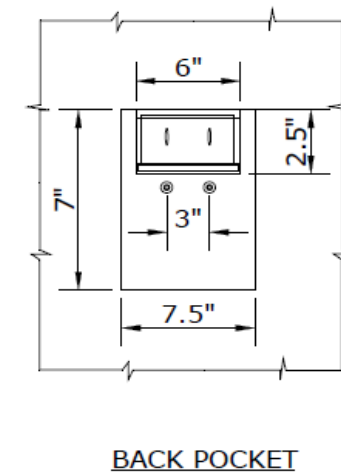
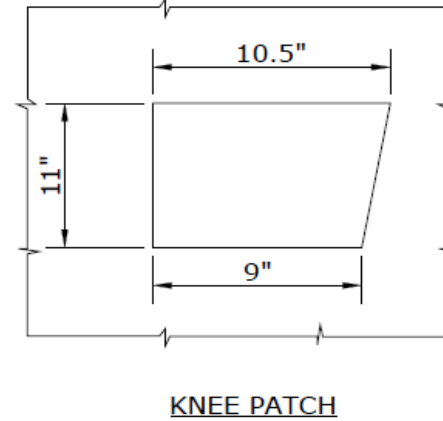
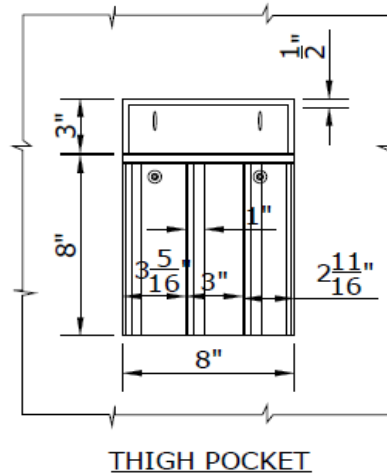
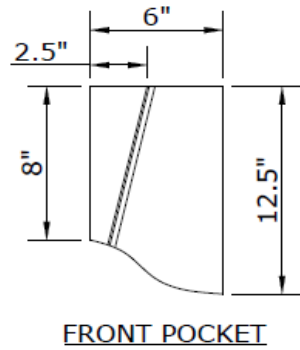
--SD--

--SD--

H.D/M
M.ASGHAR
I/c DWG.

LT.CDR
ASMA SOHAIL
SO.R&D

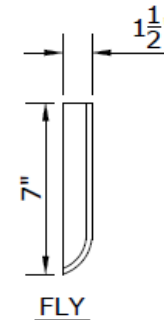
CDR
AZHAR MIR
DITD



BUTTON
SCALE: 1:2

NOTE:

FOR FURTHER DETAILS SEE SEALED SAMPLE.



DITD KARACHI		
TITLE: TROUSER CAMOUFLAGE (SMALL PARTS) SIZE:MF-34		
DWG.NO. TD-2415/2017	DIMENSIONS: INCHES	
DATE: 19-12-2017	SCALE: N.T.S	
DRAWN BY --SD-- H.D/M M.ASGHAR I/c DWG.	CHECKED BY --SD-- LT,CDR ASMA SOHAIL SO.R&D	APPROVED BY --SD-- CDR AZHAR MIR DITD

ANNEX C TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018

TECH. DETAILS OF 'PAK NAVY' SOFT TALLY FOR CAMOUFLAGE DRESS PAK MARINES

S NO	MAIN FABRIC	REQUIREMENT
BASE FABRIC MATERIAL SPECIFICATION		
1.	Material	As per Annex A of this specification
2.	Color	Khaki or Pantone 16-0518 TCX
EMBROIDERY THREAD MATERIAL SPECIFICATION		
1.	Material	100% Viscose
2.	Color	Black Pantone # 19-4006 TCX
3.	Count of yarn	2/36
EMBROIDERY THREAD PERFORMANCE TESTING		
1.	Color fastness to washing (Test No. 3) a. Change in Shade b. Staining	GS: 4 GS: 4
VELCRO TAPE MATERIAL SPECIFICATION		
1.	Material Male Female	Nylon Nylon
2.	Color	Khaki or Pantone 16-0518 TCX
VELCRO TAPE PERFORMANCE TESTING		
1.	Manual Sticking/ Unsticking	a. Satisfactory after sticking and un-sticking 300 times. b. Satisfactory after sticking and un-sticking 300 times on applying weight of 300g.
2.	Peel Strength (lbs per in width)	1.5
3.	Shear strength(PSI)	10

ANNEX D TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018

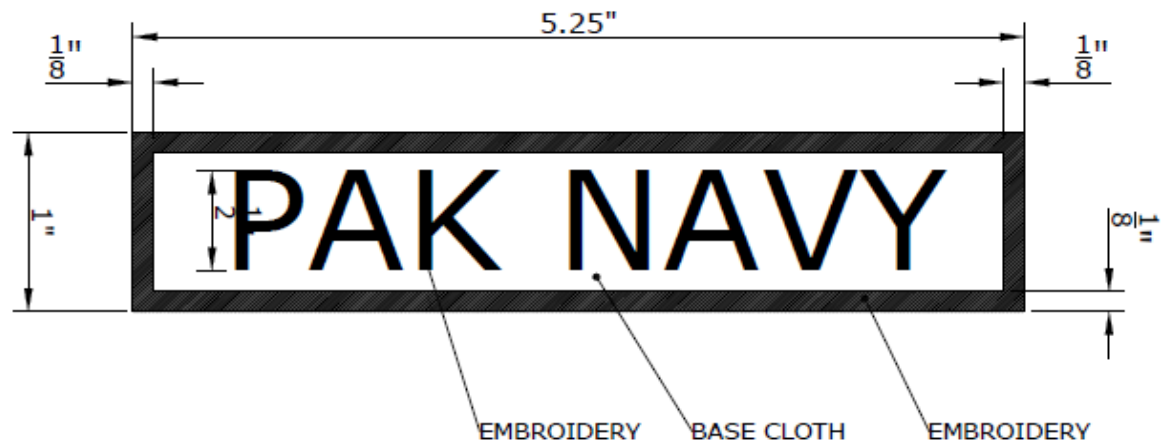
MANUFACTURING DETAILS OF 'PAK NAVY' SOFT TALLY

- 1 PAK NAVY Soft Tally shall be fabricated in accordance with the shape and design as illustrated in the drawing at Appendix I of this Annex.
- 2 The thickness of embroidery shall be 3mm.
- 3 The embroidery shall be neat and clean and all loose ends shall be trimmed off. The embroidery shall be parallel to the centre line of the tally.

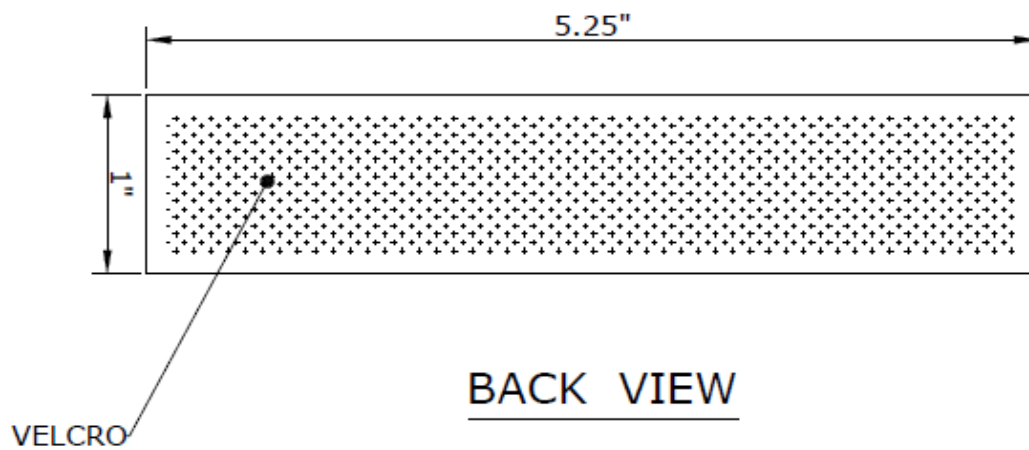
Appendix:

- I DRAWING OF 'PAK NAVY' SOFT TALLY.

APPENDIX I TO ANNEX D TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018



FRONT VIEW



BACK VIEW

1235

DITD KARACHI

TITLE: SOFT PAK NAVY TALLY
FOR CAMOUFLAGE DRESSES

DWG.NO. TD-2428/2018

DIMENSIONS: INCHES

DATE: 21-03-2018

SCALE: N.T.S

DRAWN BY

CHECKED BY

APPROVED BY

--SD--

--SD--

--SD--

H.D/M

LT,CDR

CDR

M.ASGHAR

ASMA SOHAIL

AZHAR MIR

I/c DWG

SO, R&D

DITD

NOTE:
FOR FURTHER DETAILS SEE STOCK SAMPLE

**ANNEX E TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018**

TECHNICAL DETAILS FOR CAMOUFLAGE JOCKEY / SEA CAP

S NO	ITEM	REQUIREMENT
BASE FABRIC MATERIAL SPECIFICATION		
1.	Material specification	As per Annex A of this specification
STITCHING THREAD MATERIAL SPECIFICATION		
1.	Material	Polyester
2.	Color	Green or Pantone 19-0315 TCX
3.	Count of yarn	26/3 3/22.7 Tex \pm 3%
4.	Construction	3 cord each single
STITCHING THREAD PERFORMANCE TESTING		
1.	Color fastness to washing (Test No. 3) a. Change in Shade b. Staining	GS: 4 GS: 4
2.	Strength, cN	2680
3.	Tenacity, cN/Tex	39.24
4.	Elongation %	18.53
PLASTIC PEAK MATERIAL SPECIFICATION		
1.	Material	Plastic (virgin)
2.	Thickness	1.5 -1.7 mm
3.	Hardness	97 \pm 1 IRHD
4.	Density	0.92 g/cc \pm 0.01
CARE LABEL MATERIAL SPECIFICATION		
1.	Material	Polyester with visible printing which remain satisfactory after washing test.
2.	Shade	Nearest to ground fabric color i.e. Khaki
EMBROIDERY THREAD MATERIAL SPECIFICATION		
1.	Color	Black Pantone# 19-4006 TCX
2.	Material	Viscose
3.	Count of yarn	2/44 \pm 2
<u>EMBROIDERY THREAD PERFORMANCE TESTING</u>		
1.	Color fastness to washing Test No. 3 1. Change in Shade 2. Staining Cotton	GS: 4 GS: 4

	Wool	GS: 4
<u>VELCRO TAPE MATERIAL SPECIFICATION</u>		
1.	Material Male Female	Nylon
2.	Color	Nylon Khaki or Pantone 16-0518 TCX
<u>VELCRO TAPE PERFORMANCE TESTING</u>		
1.	<u>Performance Test</u> 1. Before sticking / unsticking 300 times at 300 g. 2. After sticking / unsticking 300 times at 300g.	Satisfactory Satisfactory
2.	Peel Strength (lbs per in width)	1.5
3.	Shear strength(PSI)	10

ANNEX F TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018

MANUFACTURING DETAILS OF CAMOUFLAGE JOCKEY / SEA CAP

- 1 Camouflage Jockey / Sea Cap shall be fabricated in accordance with the shape and design as illustrated in the drawing at Annex C.
- 2 It is a 6 panel style Jockey Cap. The panels are stitched with each other using double needle stitch neatly using 10-12 SPI.
- 3 Phippen used on inner side of Cap is 10mm wide of same fabric used in upper of cap.
- 4 Velcro tape used for adjustment of cap shall be 2.5 cm of best trade quality. The color of Velcro and embroidery on eyelets shall be Khaki or Pantone 16-0518 TCX.
- 5 The dia of top Button is 16mm and it is covered with same fabric used in upper of cap.
- 6 Sweat absorbing band and inner side of peak shall be of same upper fabric.
- 7 Care label and identification label may be attached with the sweat absorbing band.

Appendices:

- I MEASUREMENT SCHEDULE OF CAMOUFLAGE JOCKEY / SEA CAP.
- II DRAWING OF CAMOUFLAGE JOCKEY / SEA CAP.

APPENDIX I TO ANNEX F TO
PN SPECIFICATION NO 03 /2018
PROMULGATION DATE 26 April 2018

MEASUREMENTS AND DIMENSIONS OF JOCKEY CAP

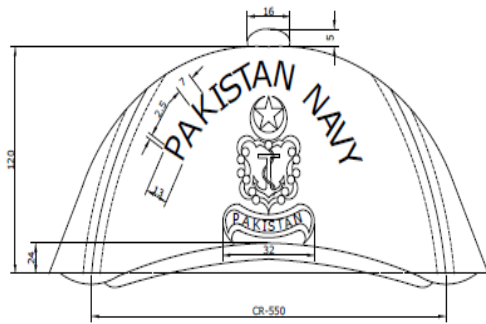
S.No.	DESCRIPTIONS	SIZE CM				TOLERANCE
	Internal circumference	55	57	59	61	<u>+0.5</u>
a.	Peak width from center	7.5	7.5	7.5	7.5	<u>+0.2</u>
b.	Peak width from edges	13	13	13	13	<u>+0.2</u>
c.	Peak Length from bottom edges	16	16	16	16	<u>+0.2</u>
d.	Peak Length from top edges	18	18	18	18	<u>+0.2</u>
e.	Height of Cap	12	12	12	12	<u>+0.5</u>

Note:

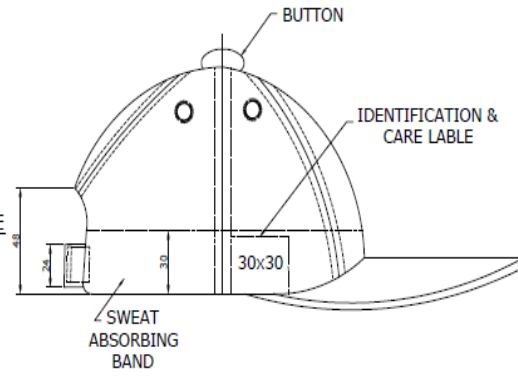
The tolerances are given only for made up caps to cover the stitching allowance. Manufacturer will ensure exact size.



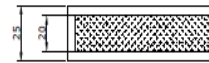
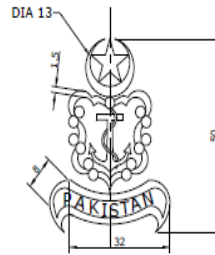
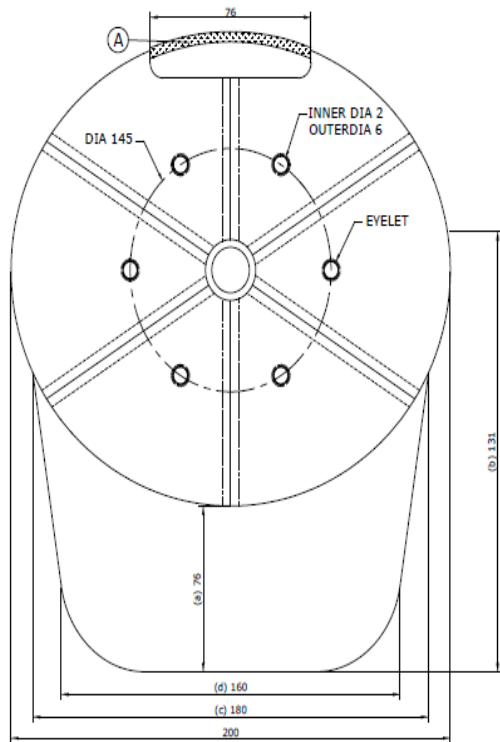
FRONT



SIDE



TOP



DETAIL-A

1181

DITD KARACHI

TITLE:		
JOCKEY SEA CAP		
CPO's & SAILORS (DRESS NO-4B)		
DWG.NO.	TD-2392/2017	DIMENSIONS: mm
DATE:	11-04-2017	SCALE: NTS
DRAWN BY	CHECKED BY	APPROVED BY
--SD--	--SD--	--SD--
ADNAN NISAR D/MAN	LT ASMA SOHAIL SO, R&D	CAPTAIN IJAZ AHMED DITD

NOTE:
FOR FURTHER DETAILS SEE STOCK SAMPLE

ANNEX G TO
PN SPECIFICATION NO 03 /2018
PROMULGATION DATE 26 April 2018

TERMS & DEFINITIONS

1. **Inspection Authority** Chief Inspector of Naval Stores (CINS). His verdict in respect of inspection matters is to be taken as final.
2. **Inspecting Officer**. An officer nominated by the Chief Inspector of Naval Stores (CINS) for carrying out inspection of stores supplied by the supplier, against a specified contract or order, in accordance with the particulars stipulated therein.
3. **Inspector**. The term inspector shall include the “Inspection Authority”, inspecting officer and their representatives, duly authorized for the purpose of discharging inspection duties involved.
4. **Sealed Pattern**. It denotes a pattern, sealed and signed by the Inspection Authority & held in his custody, and represents the standard of store in respect of materials, dimensions, design, workmanship and finish, etc. There is only one sealed pattern for each store, which cannot be removed from custody of the inspection authority.

ANNEX H TO
PN SPECIFICATION NO 03 /2018
PROMULGATION DATE 26 April 2018

GUDELINES FOR INSPECTION – GENERAL DEFECTS

Defect	
1.	<p><u>Material Defect and Workmanship Damages</u></p> <p>a. Any hole, scissor or knife tear, mend, burn or weakening defect, such as smash, multiple float, loose slub, or needle chews, that might develop in to hole.</p> <p>b. Cloth stiffened, hardened, or seared by heat, where thermo activated shade.</p> <p>c. Any garment portion puckered, twisted, or pleated at joining seam.</p>
2.	<p><u>Shaded Parts</u></p> <p>a. Any part shaded or any shade bar.</p>
3.	<p><u>Colour</u></p> <p>a. Any component of not specified color.</p>
4.	<p><u>Cleanliness</u></p> <p>a. Any slub, spot, or stain on outer side.</p> <p>b. Threads end not trimmed or loose threads ends not removed (to be scored only when condition exists on major portion of garment).</p> <p>c. Any shade identification stamping visible on outer side.</p>
5.	<p><u>Component and Assembly</u></p> <p>a. Any component not as specified or any defect of component or defect of assembly not herein classified.</p> <p>b. Any component, component part, or required operation omitted or any other operation improperly performed not herein specified/ classified.</p>
6.	<p><u>Seams and Stitching</u></p> <p>a. Any seam twisted, puckered, or pleated (unless otherwise classified herein).</p> <p>b. Any part of Jacket and Trouser caught in unrelated operation or stitching.</p> <p>c. Any edge not properly forced out, i.e, having fold more than specified.</p>

- d. Ends of stitching that are not caught in other seam or stitching not securely tacked.
- e. Ends of seams or stitches that are not caught in other seams or stitching secured but backstitched for distance less than specified.
- f. Thread breaks not securely overstitched.
- g. Stitching tension tight resulting in breakage of stitches when normal pull is applied.
- h. Stitching per 20 mm on major portion of seam one or two stitches more or less than specified, except on labels.
- j. Stitches per 20 mm on major portion of seam more than three stitches more or less than specified, except on labels.
- k. Any bar tacks omitted, loose, misplaced or not serving intended purpose.
- m. Skipped or broken stitches on one sewn eyelet.
- n. Skipped or broken stitches in two or more sewn eyelets.
- p. Stitch tension loose resulting in loose seam.
- q. Stitches in sewn eyelet one or two stitches less than specified.

ANNEX J TO
PN SPECIFICATION NO 03/ 2018
PROMULGATION DATE 26 April 2018

FEED BACK FORM

Item Designation: _____

Pattern #: _____

Parent Equipment: _____

PN SPEC #: _____

Problem Faced: _____

Technical Solution: _____

Financial Effect (if any): _____

Name Stamp

COUNTERSIGNED

Name Stamp

RESTRICTED



DID
OFFICE OF NRDI (ITD
WING)

PN/DID/03/11690723

58455

See Distribution

17 December 2021

AMENDMENT IN PN SPECIFICATION NO. 01/2018 AND 03/2018

Reference:

A. [PN/NS Dte/03/3377058 dated: 09 Dec 2021](#)

The amendments proposed in PN Specifications 01/2018 and 03/2018 have been approved by NHQ (NS Dte) vide Reference A. Same are hereby promulgated and may be incorporated in PN Specifications 01/2018 and 03/2018 as given below, please.

FOR:

Spec No.	Clause	Page No.	Description
01/2018	11.1	5	Tender Sample to be approved by INS
03/2018	11.1	5	Tender Sample to be approved by INS

READ:

Spec No.	Clause	Page No.	Description
01/2018	11.1	5	Tender Sample to be approved by TSR Committee
03/2018	11.1	5	Tender Sample to be approved by TSR Committee

MUHAMMAD AFSAR
Capt PN
DID

Distribution:

External:

RESTRICTED

RESTRICTED

Action:

NS Dte
Attn: DDNS II

DP Navy
Attn: ADP 33 PRE AND
POST

Chief Inspector of Naval
Stores
Attn: I O CLOTHING CINS

CSD N
Attn: GO I PNCSD

Information:

DNS

Chief Inspector of Naval
Stores
Attn: DCINS

CSD N
Attn: CO PNCSD

Internal:

Information:

DID
Attn: DD ID

DID
Attn: SO TEXTILE

PN/DID/03/11690723 approved by DID Capt PN Muhammad Afsar on 17 Dec 2021

Note: Computer generated documents do not require signature

RESTRICTED

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DID
OFFICE OF NRDI (ITD
WING)

PN/DID/03/12913337

58455

See Distribution

28 March 2022

CONTRACT NO. 025022/R 2102/330364 DATED 28 MAY 2021 CLOTH FOR DIGITAL
CAMOFLAGE DRESS PAK MARINES 60/40 AND CONTRACT NO. 025024/R
2102/330422 DATED 22 JUNE 2021 CLOTH FOR DRESS NO. 4B GSDC 100
PERCENT COTTON

Reference:

- A. [PN/NS Dte/03/3593754 dated: 22 Mar 2022](#)
- B. [PN/DID/03/12717170 dated: 11 Mar 2022](#)
- C. [PN/DID/03/12342044 dated: 14 Feb 2022](#)

1. It is intimated that proposed amendments in PN specifications 01/2018 and 03/2018 have been approved by NHQ (NS Dte) vide reference A. Same are enclosed and hereby promulgated for incorporation in relevant PN specifications.
2. Letter at reference C may be treated as cancelled, please.

MUHAMMAD AFSAR
Capt PN
DID

Encl(s):

1. [Amendment in PN specification 01 2018](#)
2. [Amendment in PN specification 03 2018](#)

Distribution:

External:

RESTRICTED

RESTRICTED

Action:

NS Dte
Attn: DDNS II

DP Navy
Attn: ADP 33 PRE AND
POST

Chief Inspector of Naval
Stores
Attn: I O CLOTHING CINS

Information:

DNS

DP NAVY

Chief Inspector of Naval
Stores
Attn: DCINS (AOD)

CSD N
Attn: CO PNCSD

Internal:

Information:

DID
Attn: SO TEXTILE

PN/DID/03/12913337 approved by DID Capt PN Muhammad Afsar on 28 Mar 2022

Note: Computer generated documents do not require signature

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RESTRICTED



PRIORITY

DID
OFFICE OF NRDI (ITD
WING)

PN/DID/03/13639508

58455

See Distribution

28 June 2022

AMENDMENT IN PN SPECIFICATION NO 03/2018: DRESS PAK MARINES (60
PERCENT COTTON AND 40 PERCENT POLYESTER)

Reference:

A. [PN/NS Dte/03/3799542 dated: 23 Jun 2022](#)

It is intimated that proposed amendments in PN Specifications 03/2018 for Dress Pak Marines (60% Cotton and 40% Polyester) have been approved by NHQ (NS Dte) vide Reference above. Same are enclosed and hereby promulgated for further necessary action, please.

MUHAMMAD AFSAR
Capt PN
DID

Encl(s):

1. [Amendments in PN Specificatytions 03 2018](#)

Distribution:

External:

Action:

NS Dte
Attn: DDNS II

RESTRICTED

RESTRICTED

DP Navy
Attn: ADP 33 PRE AND
POST

Chief Inspector of Naval
Stores
Attn: I O CLOTHING CINS

CSD N
Attn: GO I PNCSD

Internal:

Action:

Chief Inspector of Naval
Stores
Attn: DCINS (AOL)

DNS

CSD N
Attn: CO PNCSD

Information:

DID
Attn: SO TEXTILE

PN/DID/03/13639508 approved by DID Capt PN Muhammad Afsar on 28 Jun 2022

Note: Computer generated documents do not require signature

RESTRICTED



DGITD
MATERIEL BRANCH
NAVAL HEADQUARTERS
NSSD AREA WEST
WHARF ROAD KARACHI

PN/DGITD/03/1445384

59256

See Distribution

20 December 2018

AMENDMENT IN PN SPECIFICATION OF DRESS PAK MARINES

Reference:

- A. [PN/NS Dte/03/1375033 dated: 12 Nov 2018](#)
- B. [PN/DGITD/03/1285656 dated: 10 Sep 2018](#)
- C. [PN/DGITD/03/1106599 dated: 26 Apr 2018](#)

Apropos letter at references A, following amendments may please be incorporated in PN Specification No. 03/2018 promulgated vide reference C:

a. Amend Para (16) Packing Details of PN Specification No 03/2018

- i. Packing details at Para 16 may be amended after addition of fabric and jockey cap packing instructions as follows:

FABRIC PACKING DETAILS

- Accepted fabric shall be packed in the form of rolls.
- Each roll shall have length from 100 yards up to 200 yards (within multiple of 4 Yds)
- The rolls should be packed / wrapped in polyethylene sheet, vacuumed and in sealed packing.
- Each roll shall bear identification label indicating description of store, year of manufacture and contract no, material composition, fabric width and length, contractors name, batch no. ,shrinkage

JOCKEY CAP PACKING DETAILS

- 10 X Camouflage Jockey /Sea Caps bundles shall be packed in a neat and tidy condition in standard polyethylene packing of 0.035 mm thickness. These bags/ bundles shall be

sealed with transparent adhesive tape 2.54 cm of thickness 0.04 – 0.05 mm.

- 05 X such bundles (50 caps) shall be packed in Carton Corrugated Card board box (07 ply).
- Each Carton shall contain one size of Camouflage Sea Caps only.
- Each Box Board Packing shall be securely and properly packed with transparent adhesive tape 10 cm of thickness 0.04- 0.05 mm.

ii. Amended measurement schedule and drawings are also enclosed to replace Appendix 1 and 2 of Annex B at your end please.

ASMA SOHAIL
Lt Cdr PN
SO TEXTILE DITD (S)

Encl(s):

1. [Appendix 1 of Annex B](#)
2. [Appendix 2 of Annex B 1](#)
3. [Appendix 2 of Annex B 2](#)
4. [Appendix 2 of Annex B 3](#)
5. [Appendix 2 of Annex B 4](#)

Distribution:

External:

Action:

DP (NAVY)

CINS

DNS

CSD N

Attn: CO PNCS

Information:

COMDEP

Attn: SSO

PN/DGITD/03/1445384 approved by SO TEXTILE DITD (S) Lt Cdr PN Asma Sohail on
20 Dec 2018

Note: Computer generated documents do not require signature

Viewed by: Lt PN Rana Mehdi Hassan GO I PNCSD. Dated: 09 Nov 2021 09:12:09

APPENDIX I TO ANNEX B TO
PN SPECIFICATION NO 03/2018**MEASUREMENT SCHEDULE OF DRESS CAMOUFLAGE BUSH JACKET (INCHES)**

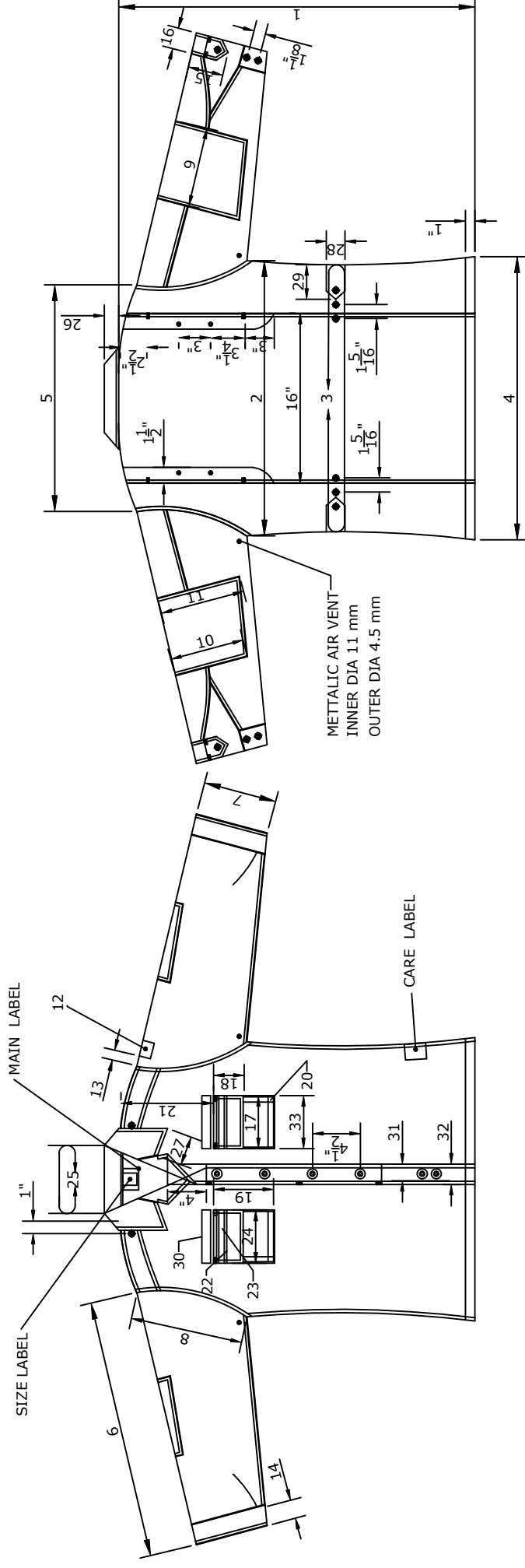
S.No		3XS	2XS	XXS	XSF	XSL	SF	SL	MF	ML	LF	LL	XLF	XLL	XXL	2XXL	3XXL	4XXL	TOL
	Description	30	32	34	36	36	38	38	40	40	42	42	44	46	48	50	52	54	±
01	Length from center back.	28	29	30	29	31	29	31	29	31	29	31	31	31	31	31	32	32	0.75
02	Chest.	18	19	20	21	21	22	22	23	23	24	24	25	26	27	28	29	30	0.5
03	Waist.	17	18	19	20	20	21	21	22	22	23	23	24	25	26	27	28	29	0.5
04	Bottom.	18	19	20	21	21	22	22	23	23	24	24	25	26	27	28	29	30	0.5
05	Shoulder.	16	16.25	16.75	17.25	17.25	18	18	18.75	18.75	19.5	19.5	20.25	20.25	21	21	21	21	0.25
06	Sleeve Length.	21.5	22	23	23	25	23.5	25	23	25	23.5	25	24.5	25	25	25.5	25.5	25.5	0.5
07	Sleeve opening.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6.5	6.5	6.5	0.38
08	Arm hole.	9	9.25	9.5	10	10	10	10	10.5	10.5	10.5	10.5	11	11	11	11.5	11.5	12	0.5
09	Sleeves patch length.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.25
10	Sleeves patch width top.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0.25
11	Sleeve patch width bottom.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.25
12	Flag Velcro size.	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	4/6CM	0
13	Flag Velcro placement from shoulder seam.	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0
14	Cuff height.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.13
15	Sleeve loop length.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0.25
16	Sleeve loop Width.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.13
17	Front flap width.	4.75	4.75	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	0.25
18	Front flap height.	2.25	2.25	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.13
19	Front pocket length including flap.	6	6	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	0.25
20	Front pocket side box.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.13
21	Front pocket placement.	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0.25
22	Front pocket hem.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.13
23	Front pocket Velcro height.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
24	Front pocket Velcro width.	4.25	4.25	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0.25
25	Collar.	13.5	14	14.5	14.5	15	15	15.5	15.5	16	16	16.5	16.5	17	17.5	18	18	18.5	0.38
26	Collar height from center back.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0.13
27	Collar corner.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.13
28	Side loop width.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.13
29	Side loop length.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0.13
30	Front pocket tally Velcro (width & Length).	1/4.75	1/4.75	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	1/5.25	0.13
31	Front placket width right side.	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	0.13

32	Front placket width left side.	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.13
33	Front pocket width.	4.75	4.75	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	0.13

PROMULGATION DATE 26 April 201

MEASUREMENT SCHEDULE OF DRESS CAMOUFLAGE TROUSER (INCHES)																			
		3XS	2XS	XXS	XSF	XSL	SF	SL	MF	ML	LF	LL	XLF	XLL	XXL	2XXL	3XXL	4XXL	TOL
SR	DESCRIPTION	26	28	30	32	32	34	34	36	36	38	38	40	42	44	46	48	50	±
1	Waist.	26	28	30	32	32	34	34	36	36	38	38	40	42	44	46	48	50	0.5
2	Hip (8in from belt).	35	37	39	41	41	43	43	45	45	47	47	49	51	53	55	57	59	0.5
3	Thigh.	23	24	25	26	26	27	27	28	28	29	29	30	31	32	33	34	35	0.5
4	Knee 13" from crouch.	9.25	9.5	9.75	10	10	10	10.25	10.25	10.5	10.5	10.75	10.75	11	11.25	11.5	11.75	12	0.25
5	Bottom.	8.5	8.75	9	9	9	9.25	9.25	9.25	9.25	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	0.25
6	Out seam.	41	41	41	39	42	39	42	39	42	39	42	42	42	42	42	42	42	1
7	Front rise.	10.5	10.75	11	11.25	11.5	11.5	11.75	11.75	12	12	12.25	12.5	12.75	13	13.25	13.5	13.75	0.25
8	Back rise.	15.5	15.75	16	16.25	16.5	16.5	16.75	16.75	17	17	17.25	17.5	17.75	18	18.25	18.5	18.75	0.25
9	Front patch length.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0.25
10	Front pocket opening waist.	2	2	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	0.25
11	Front pocket side seam.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.25
12	Thigh pocket length.	7.5	7.5	8	8	8	8	8	8	8	8	8.5	8.5	8.5	8.5	8.5	8.5	8.5	0.25
13	Thigh pocket width.	7	7	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	8	8	8	8	8	8	8	0.25
14	Thigh pocket flap height.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0.13
15	Back pocket flap width.	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0.25
16	Back pocket flap height.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.13
17	Back patch inside length.	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	0.25
18	Waist belt.	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.13
19	Thigh pocket placement from Waist belt.	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	0.25
20	Belt loop length.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0.25
21	Belt loop width bottom.	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	0.13
22	Belt loop width top.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.13
23	Fly width.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.13
24	Fly length full.	6.5	6.5	7	7	7	7	7	7	7	7	7	7.75	7.75	7.75	8	8	8	0.25

APPENDIX II TO ANNEX B TO
PN SPECIFICATION NO 03/2018
PROMULGATION DATE 26 April 2018



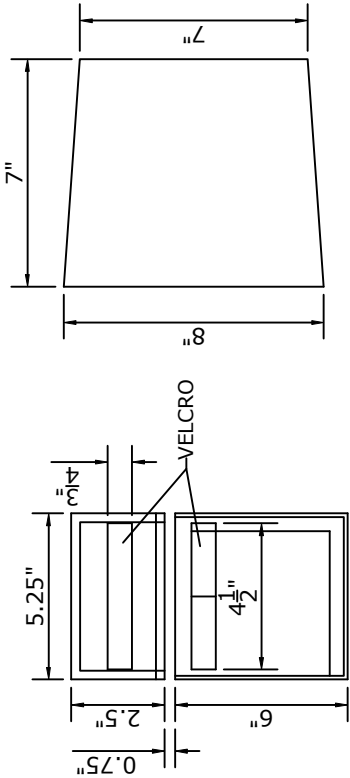
FRONT VIEW

1252

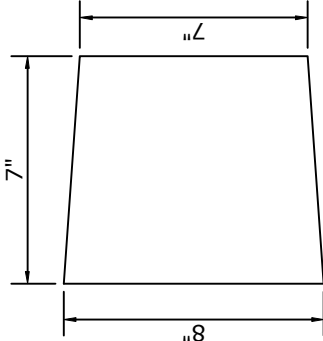
BACK VIEW

NOTE:
FOR FURTHER DETAILS SEE SEALED STOCK SAMPLE

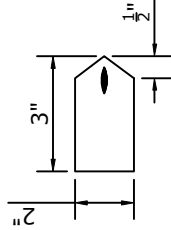
DITD KARACHI									
TITLE: SHIRT CAMOUFLAGE (MAIN BODY) SIZE- MF-40									
DWG.NO. TD-2445/2018 DIMENSIONS: INCHES									
DATE: 28-08-2018 SCALE: N.T.S									
DRAWN BY CHECKED BY APPROVED BY									
H.D/M M.ASGHAR I/c DWG. LTCDR ASMA SOHAIL SO.R&D CDR AZHAR MIR DITD									
17 DESCRIPTION									
S.NO	ITEM	S.NO	ITEM	S.NO	ITEM	S.NO	ITEM	S.NO	ITEM
24	FRONT POCKET VELCRO WIDTH	5	12	FLAG VELCRO SIZE	4X6 CM				
23	FRONT POCKET VELCRO HEIGHT	0.5	11	SLEEVE PATCH WIDTH BOTTOM	7				
22	FRONT POCKET HEM	1	10	SLEEVE PATCH WIDTH TOP	8				
33	FRONT POCKET WIDTH	5.25	21	FRONT POCKET PLACEMENT					
32	FRONT PLACKET W LEFT SIDE	1.75	20	FRONT POCKET SIDE BOX	7.5	09	SLEEVE PATCH LENGTH	7	
31	FRONT PLACKET W RIGHT SIDE	1.25	19	FRONT POCKET LENGTH INCLUDING FLAP	1.5	08	ARM HOLE	10.5	
30	FRONT POCKET TALLY VELCRO	1x5.25	18	FRONT POCKET LENGTH	6.75	07	SLEEVE OPENING	6	
29	SIDE LOOP LENGTH	3	17	FRONT FLAP HEIGHT	2.5	06	SLEEVE LENGTH	23	
28	SIDE LOOP WIDTH	2	16	FRONT FLAP WIDTH	5.25	05	SHOULDER	18.75	
27	COLLAR CORNER	2.5	15	SLEEVE LOOP WIDTH	2	04	BOTTOM	23	
26	COLLAR HEIGHT FROM CENTER BACK	3	14	SLEEVE LOOP LENGTH	3	03	WAIST	22	
25	COLLAR	15.5	13	CUFF HEIGHT	2	02	CHEST	23	
				FRONT POCKET PLACEMENT FROM SHOULDER SEAM	1.75	01	LENGTH FROM CENTER BACK	29	



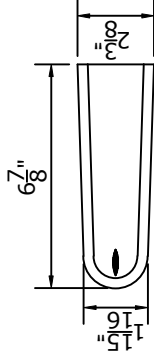
POCKET



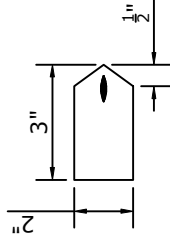
ELBOW PATCH



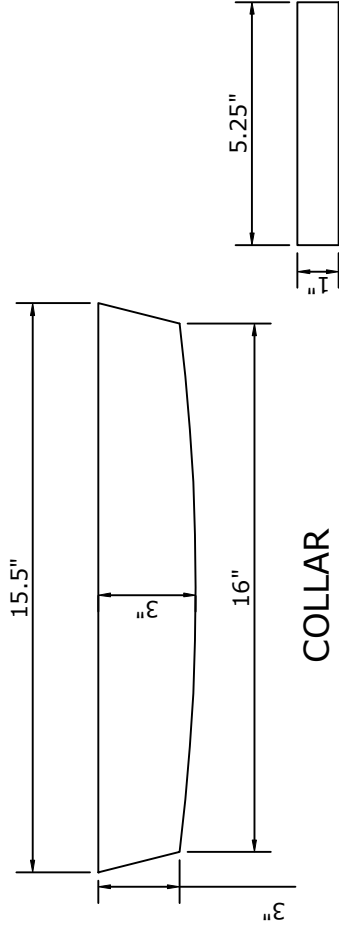
SIDE LOOP



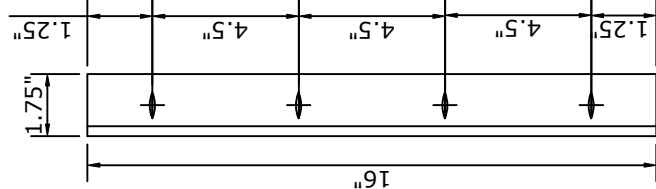
SHOULDER FLAP



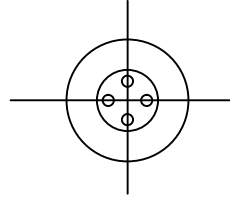
CUFF LOOP



COLLAR



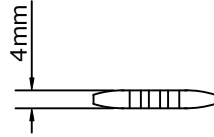
BUTTON HOLE TAG



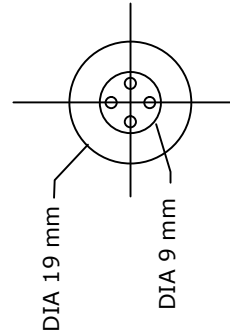
BACK

SIDE

FRONT



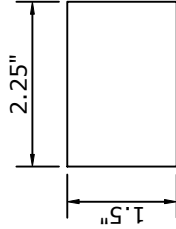
4mm



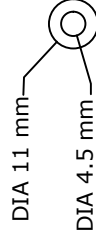
DIA 19 mm

DIA 9 mm

NAME TALLY



FLAG PATCH



AIR VENT

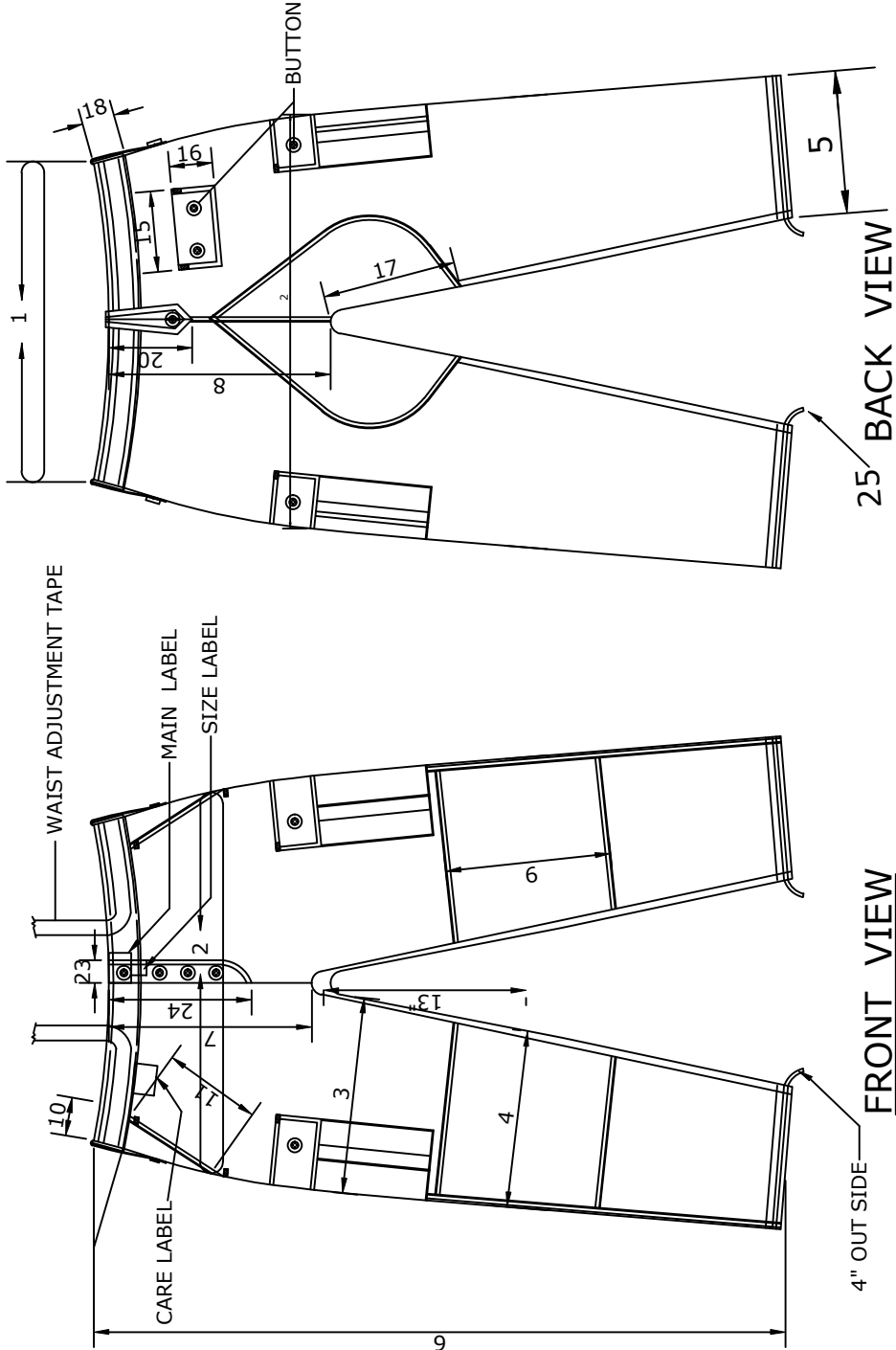
DITD KARACHI			
TITLE:	SHIRT CAMOUFLAGE		
	(SMALL PARTS) SIZE:MF-40		
DWG.NO.	TD-2446/2018	DIMENSIONS: INCHES	
DATE:	28-08-2018	SCALE:	N.T.S
DRAWN BY	CHECKED BY	APPROVED BY	
--SD--	--SD--	--SD--	
H.D/M	LTCDR	CDR	
M.ASGHAR	ASMA SOHAIL	AZHAR MIR	
I/c DWG.	SO, R&D	DITD	

1253

NOTE:
17 FOR FURTHER DETAILS SEE SEALED SAMPLE.

BACK
SCALE:1:2

CARE LABEL
MAIN LABEL
SIZE LABEL
WAIST ADJUSTMENT TAPE



FRONT VIEW

BACK VIEW

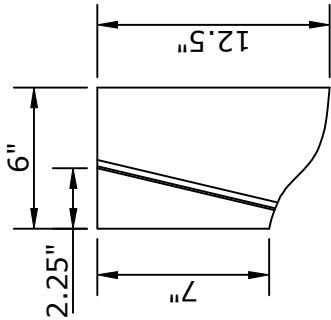
SIDE VIEW

DITD KARACHI	
TITLE: TROUSER CAMOUFLAGE (MAIN BODY) SIZE:MF-36	
DWG.NO. TD-2447/2018	DIMENSIONS: INCHES
DATE: 28-08-2018	SCALE: N.T.S
DRAWN BY	CHECKED BY
APPROVED BY	
H.D/M	LTCDR
M.ASGHAR	ASMA SOHAIL
T/c DWG	SO.R&D
	CDR
	AZHAR MIR
	DITD

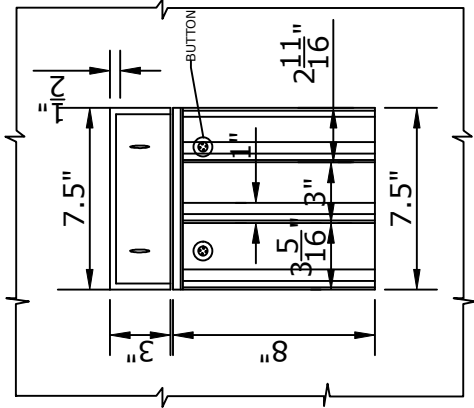
				14	THIGH POCKET FLAP HEIGHT	3
				13	THIGH POCKET FLAP WIDTH	7.5
				12	THIGH POCKET LENGTH	8
				11	FRONT POCKET SIDE SEAM	7
			Ø2/8"	10	FRONT POCKET OPENING WAIST SEAM	2.25
			7	9	FRONT PATCH LENGTH	10
			1.5	8	BACK RISE	16.75
			1	7	FRONT RISE	11.75
			1.75	6	OUT SEAM	39
			5	5	BOTTOM	9.25
			10.5	4	KNEE ON 13" FROM CROUCH	10.25
			1.75	3	THIGH	28
			6.25	2	HIP(8 FROM BELT)	45
			2.5	1	WAIST	36
			6			
S.NO	ITEM	INC	S.NO	ITEM	INC	
18 DESCRIPTION						

1254

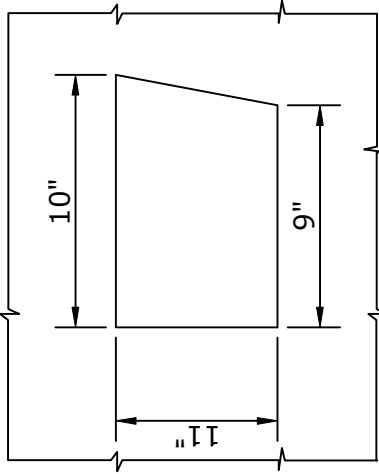
NOTE:
FOR FURTHER DETAILS SEE SEALED SAMPLE.



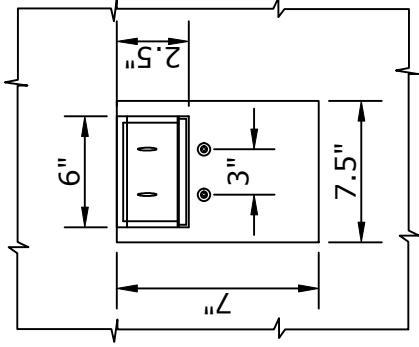
FRONT POCKET



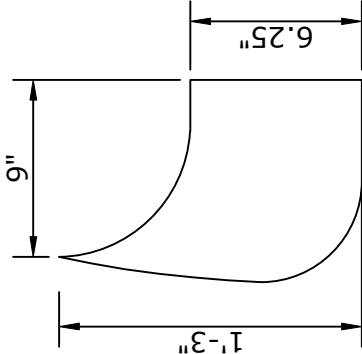
THIGH POCKET



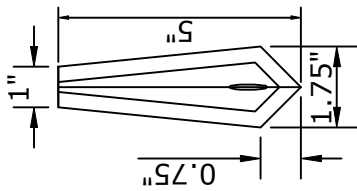
KNEE PATCH



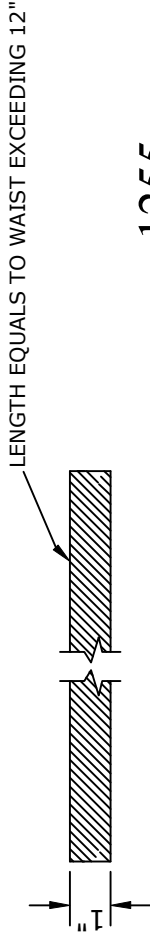
BACK POCKET



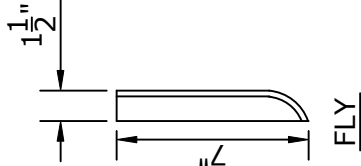
HIP PATCH



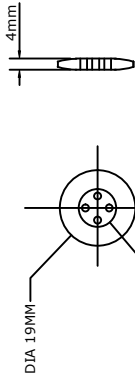
BELT LOOP



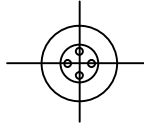
WAIST ADJUSTMENT TAPE



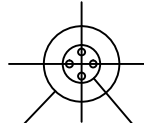
FLY



SIDE



BACK



FRONT

BUTTON

SCALE:1:2

NOTE:

19 FOR FURTHER DETAILS SEE SEALED SAMPLE.

DITD KARACHI			
TITLE: TROUSER CAMOUFLAGE (SMALL PARTS) SIZE:MF-36			
DWG.NO. TD-2448/2018	DIMENSIONS: INCHES		
DATE: 28-08-2018	SCALE: N.T.S		
DRAWN BY	CHECKED BY	APPROVED BY	
--SD--	--SD--	--SD--	
H.D/M	LTCDR	CDR	
M.ASGHAR	ASMA SOHAIL	AZHAR MIR	
I/c DWG	SO.R&D	DITD	

ANNEX B TO
PN SPECIFICATION NO 03 2018
PROMULGATION DATE 26 April 2018

AMENDEMENTS IN PN SPECIFICATION 03/2018
DRESS PAK MARINES 60% COTTON - 40% POLYESTER

MANUFACTURING DETAILS OF DIGITAL CAMOUFLAGE

FOR:

Article No	Page No	ITEM
4.	14	In Bush jacket metallic air vents are placed at arm pits both side front and back and two in upper and lower side of each back pleat. Outer dia is 11mm and inner dia is 4.5 mm. Shade of anti-rust anodized metallic brass air vents should match with the light brown color i.e. Pantone 15-4003 TCX.

READ:

Article No	Page No	ITEM
4.	14	In Bush jacket metallic air vents are placed at arm pits both side front and back and two in upper and lower side of each back pleat. Outer dia is 11mm and inner dia is 4.5 mm. Shade of anti-rust anodized metallic brass air vents should match with the Green color present in base fabric (Digital Camouflage Dress Pak Marines- 60% Cotton and 40% Polyester) OR. Pantone shade i.e. 19-0315 TCX

AMENDMENTS IN PN SPECIFICATION 03/2018

FOR:

S NO	ITEM	REQUIREMENT
BASE FABRIC MATERIAL SPECIFICATION (RIBBED CAMOUFLAGE CLOTH)		
4.	Color Scheme	
	Navy	19-4027 TCX
	Dark Brown	19-0814 TCX
	Light Brown	18-0930 TCX
	Khaki	16-0518 TCX
	Green	19-0315 TCX
	Beige Dye	14-0216 TCX
Or as per approved samples held with CINS		

READ:

S NO	ITEM	REQUIREMENT			
BASE FABRIC MATERIAL SPECIFICATION (RIBBED CAMOUFLAGE CLOTH)					
4. a.	Color Shade	Panton Shade	OR	L a b Values	
			L	a	b
	Navy/ Blue	19-4027 TCX	24.12	-3.74	-14.76
	Dark Brown/ Brown	19-0814 TCX	27.50	6.06	11.20
	Light Brown	18-0930 TCX	33.78	7.09	13.12
	Khaki/	16-0518 TCX	55.15	1.28	20.46
	Green	19-0315 TCX	31.21	-8.24	12.24
	Beige Dye	14-0216 TCX	65.09	-3.31	14.75
	b.	Color Difference	(ΔE ≤ 1)		