PRIVATE SPECIFICATION

Prepared for the

SOUTH AFRICAN NAVY

LADIES' SHORT SLEEVES BLOUSES
(white, tropical)

SAN 163
Revised October 2008

1. Scope

This specification covers the material, cut and make of short sleeves blouses for female personnel of the South African Navy.

Tenderer's comments

2. Definitions

acceptable: acceptable to the Directorate, Naval Logistics

nominal: subject to the tolerances normal to good manufacturing practice

3. Style

open neck
lapel collar
shoulder strap with mitred points
short sleeves with mock cuffs
straight bottom hem
front and back waist darts
bust darts

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4. Materials - General

Tenderer's comments

No materials will be supplied by the South African Navy

The materials specified in 5 and 6 are to be supplied and used by the manufacturer

A trim chart containing a sample of each component material (as given in 6) must accompany the pre-production samples

5. Outer material

The outer material to:

comply with the requirements of table 1
be of an acceptable white colour (as agreed upon between the purchaser and the manufacturer)

Three metres of fabric must be submitted for colour registration purposes: see Annex A

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Table 1 – Material requirements

1	2	3
Property	Requirement	SANS number (unless otherwise indicated)
Composition, %		1833-1 and 1833-4
Polyester	100%	
Weave	2/2 Twill	Visual examination and physical analysis
Mass per unit area, g/m², min.	200	79
Number of threads per cm , min.		7211-2
Warp ..... Weft	28,4 21,6	
Tensile strength, N, min.		13934-1
Warp ..... Weft	1550 1350	
Dimensional changes, %, max.		
Laundering Warp and weft direction	2	960 procedure C
Seam slippage, N, min.		5726
Warp ..... Weft	220 300	
Colour fastness to:		
Light, rating, min.	4	105-B02
Washing , rating, min.		105-C10 (Test B(2))
Change in colour	4	
Perspiration, rating, min.		105-E04
Change in colour	4	
Resistance to abrasion	2500 rubs No breaks	6009

Tenderer's comments

6. Component materials

Tenderer's comments

6.1 Interlining

which complies with the requirements of CKS 627 "Fusible interlining"
fusible woven or non-woven interlining
suitable for use in garments which may be washed

The selection of interlining of appropriate mass per unit area to be determined by consultation with the supplier of the interlining.

6.2 Buttons

two-hole plastics
full impregnated
dope-dyed
nominal diameter 11 mm
colour to be white

6.3 Threads

sewing thread:
to comply with relevant requirements of SANS 1362 "Sewing threads"
to be an acceptable match to the colour of the outer material
polyester-and-cotton core-spun
or staple polyester
ticket No 120

overlocking thread:
crimp-textured polyester
ticket No 140

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7. Workmanship

Tenderer's comments

The blouses shall be:

cut and made with first-class workmanship throughout
of uniform and acceptable make, colour and finish

Shall be free from:

defects, that affect their appearance or may affect their serviceability (or both)
marks
spots
stains, incurred in the making-up

Seams and stitches shall be:

smooth and uniform
free from twists, pleats and puckers
sufficiently extensible to avoid seam cracking and undue shrinkage in use

Ends of sewing shall be:

trimmed and loose threads removed
back-tacked if unsecured

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8. Sizes

Tenderer's comments

Blouse measurements:

MEASURING POINT		DESCRIPTION
A - A	Bust circumference	Measure at the base of the scye, with garment spread completely flat, and multiply by 2.
B – B	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
C – C	Back width	Measure across the width of the back, at the midpoint of the scye, from sleeve seam to sleeve seam.
A – D	Sleeve length	Measure from the base of the scye to the outer edge of the sleeve.

Table 2 - size range

1	2	3	4	5	6
		Nominal finished garment measurements, cm			
NSN	Size designation[1)]	Bust	Back length	Back width	Sleeve length
8410-18-097-0367	77	96	73	41	13
8410-18-097-0369	82	101	74	42	13
8410-18-097-0370	87	106	74	43	13
8410-18-097-0371	92	111	75	44	13
8410-18-097-0373	97	116	75	45	13
8410-18-097-0374	102	121	76	46	13
8410-18-097-0375	107	126	76	47	14
8410-18-097-0376	112	131	77	48	14
8410-18-097-0377	117	136	77	49	14
8410-18-097-0379	122	141	78	50	15
8410-18-097-0380	127	146	78	51	15
8410-18-097-0381	132	151	79	52	15
8410-08-097-0383	137	156	79	53	15

1) Based on the bust girth, in centimetres, of the intended wearer.

Tenderer's comments

9. Make

Illustrations are not to scale and are for guidance only, and unless inconsistent with the text, all measurements are nominal.

Tenderer's comments

9.1 Foreparts

Foreparts shall have:

a right over left overlap
an edge stitching
- 6 mm from the edge

a sewn-on facing
a straight hem
shaped side seam
waist suppression darts
- depth of 5 mm (measured at the centre on the inside of the dart)
- length of 32 cm (measured on a size designation 97, on bigger and smaller sizes to grade proportionally)

underarm bust darts
- positioned 55 mm below the base of the scye
- of finished depth of 20 mm

9.2 Facing

Facing to be:

sewn-on
of finished width 60 mm at the shoulder seam and the bottom hem
overlocked on the free edges
lined with interlining
of outer material

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Tenderer's comments

9.3 Collar

Collar to be:

open-neck
- forming a 10^0 angle with the gorge seam

lined with outer material and top-fused with interlining
of finished depth 75 mm at the centre back and 60 mm at the points
top-stitched 6 mm from the edge

Collar to have:

a 20 mm lapel step

9.4 Back

The back shall:

be one piece
have two waist suppression back darts
- depth of 5 mm (measured at the centre on the inside of the dart)
- length of 32 cm (measured on a size designation 97, on bigger and smaller sizes to grade proportionally)

be stitched from the hem to the waist line
- finished off with a horizontal stitching at the waistline
- and shall form pleats above the waistline

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Tenderer's comments

9.5 Shoulder straps

Shoulder straps to be:

mitred at the free end
lined with outer material
top-fused with interlining
of finished width 50 mm at shoulder seam
tapering to 35 mm at the base of the mitre
of minimum length 15 cm (measured from the shoulder seam to the end of the mitred point)
sewn in with the sleeve insertion seam
positioned 5 mm forward of the natural shoulder line
edge-stitched 6 mm from the edge

9.6 Sleeves

Sleeves to be:

one-piece
shirt type
set-in
short

Sleeves to:

have mock cuffs
- finished width 35 mm
- interlined with interlining

have underarm seam
- closed before hemming of mock cuffs

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Tenderer's comments

9.7 Buttonholes

Buttonholes to be:

eight in total for sizes 77 to 102 and nine in total for sizes 107 to 137
neatly made
barred
shirt type buttonholes
14 mm long

Six or Seven buttonholes to be:

positioned on the right forepart
vertical
positioned 15 mm from the front edge
positioned with the top buttonhole at the break of the lapel
equidistantly spaced
positioned at approximately 8 cm - 10 cm intervals (determined by the size of the shirt)

One buttonhole to be:

positioned in each shoulder strap and
- centrally positioned at the base of the mitre

9.8 Buttons

Buttons to be:

eight or nine in total (depending on size)
properly secured

Six or seven buttons to be:

positioned on the left forepart
in corresponding positions to that of the relevant buttonholes

One button to be:

- positioned on each side of the shoulder
  - in corresponding positions to that of the shoulder strap buttonholes

In addition:

two spare buttons to be sewn to the left facing
- positioned near the bottom hem

9.9 Bottom Hem

Hem to be:

straight
of finished width 10 mm
- turned in 5 mm
- turned up 10 mm

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10. Stitches, seams and stitchings

Tenderer's comments

10.1 Stitches

main seaming: safety stitch

overlocking: three-thread overlocking stitch

other stitches: single needle lock stitch

10.2 Seams

Seams to be at least 10 mm wide:

shoulder, side, sleeve and sleeve-insertion seams: seam type SSa

Superimpose two or more plies of material and seam with the appropriate number of rows of stitches positioned at the specific distance(s) from the aligned edges.

Collar and shoulder straps edges: seam type SSe-2

Form seam type SSa-1, using two plies of material. Then turn back each ply at the seam and seam through the turned edges with the appropriate number of rows of stitches.

10.3 Stitchings

all exposed raw edges: stitching type EFd

Stitch over the edge of a ply of material with one row of stitches

Cuff, pocket and bottom hems: stitching type EFb-1

Turn in the specified width at the edge of a ply of material, fold back the turned edge, and stitch the turned-in and folded portion with the appropriate number of rows of stitches.

Tenderer's comments

10.4 Number of stitches

seaming: 40 ± 4 per 10 cm

overlocking stitching: 32 ± 4 per 10 cm

buttonholes: 12 ± 1 per 1 cm

buttons: 12 ± 1 per button

bar-tack: 22 ± 2 per 1 cm

11. Packing, care-labelling and marking

11.1 Packing

The blouses shall be:

delivered in a commercially dry condition
so packed that they will not be damaged in transit or in storage
neatly folded and individually packed in a plastics envelope of suitable size and shape
unless otherwise specified in the order or contract, acceptably packed (in units of 10)
for transportation in acceptable bulk containers that comply with the requirements of RSA-MIL-SPEC 296 "Corrugated board boxes for clothing"

Blouses

of the same size designation to be packed together in a bulk container (unless quantities ordered are such that packing together of the same size only, is not justified).
of different size designations may also be packed together to accommodate the last part of an order or contract

11.2 Care-labelling

Each blouse to have a woven or printed label that is permanently secured and that provides (in accordance with SANS 10011 "Care-labelling of textiles and clothing") correct and appropriate care instructions and the fibre composition of the fabric (in accordance with the requirements of SANS 10235 "Fibre content labelling of textiles and textile products")
printed labels to comply with the requirements of SANS 1309 "Printed labels for textiles"
all care-labels and their markings to be such that they outlast the blouse.
all care instructions shall be shown in words and in symbols

11.3 Marking

11.3.1 Ladies Blouses:

Each blouse to have:

secured to the back neck seam, a woven fabric label that complies with the requirements of SANS 1309 "Printed labels for textiles"

Tenderer's comments

Each label to:

provide the following information in legible and indelible block letters of height at least 3 mm:
the manufacturer's name or trade mark or both
the size designation
the year of manufacture
the NSN number
the VAT no. of the manufacturer
the country of origin

11.3.2 Envelopes

Each envelope to be clearly marked with the following information:

the designation, i.e. "Ladies' short sleeves blouses (white, tropical)"
the size designation
the NSN number

11.3.3 Containers

Each bulk container to have a label securely attached to the outside visible when the containers are stacked and shall provide the following information:

the manufacturer's name or trade mark or both
the designation, i.e. "Ladies' short sleeves blouses (white, tropical)"
the size designation
the quantity
the order number or contract number
the year of manufacture
the NSN number

11.4 Additional marking

When so required by the South African Navy, blouses, envelopes or containers (or any combination of these) to bear information additional to that specified above.

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12. Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from Standards South Africa.

RSA-MIL-SPEC-296, *Corrugated board boxes for clothing.*

CKS 129, *Colours for textiles.*

CKS 627, *Fusible interlinings.*

SANS 79 (SABS SM 79), *Textiles - Mass per unit area of conditioned fabrics.*

SANS 105-B02, *Textiles - Tests for colour fastness Part B02: Colour fastness to artificial light: Xenon arc fading lamp test.*

SANS 960, *Textiles - Dimensional stability during washing and drying procedures.*

SANS 105-C10, *Textiles - Tests for colour fastness Part C10: Colour fastness to washing with soap or soap and soda.*

SANS 105-E04, *Textiles - Tests for colour fastness Part E04: Colour fastness to perspiration.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1833 (SABS ISO 1833), *Textiles - Binary fibre mixtures - Quantitative chemical analysis.*

SANS 5726 (SABS SM 726), *Seaming properties of woven textile fabrics.*

SANS 6116 (SABS SM 1116), *Resistance of textile fabrics to pilling and fuzzing (Random tumble method).*

SANS 7211-2 (SABS ISO 7211-2), *Textiles - Woven fabrics - Construction - Methods of analysis Part 2: Determination of number of threads per unit length.*

SANS 10011 (SABS 011), *Care-labelling of textiles and clothing.*

SANS 10235 (SABS 0235), *Fibre content labelling of textiles and textile products.*

SANS 13934-1 (SABS ISO 13934-1), *Textiles - Tensile properties of fabrics Part 1: Determination of maximum force and elongation at maximum force using the strip method.*

Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, the South African Bureau of Standards, shall be the inspecting authority.

A-2 Three pre-production sample blouses, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced. Each one of these samples shall be accompanied by a trim chart containing a sample of each component material (as given in 6) and the relevant certificates. Three metres of the outer material fabric must also be submitted by the successful tenderer to make swatches for colour registration purposes. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The blouses shall be subject to inspection during the course of manufacture. The inspector shall, during normal working hours, be given all reasonable facilities for carrying out his duties and shall have the right of entry into the contractor's factory and the factory or works of any subcontractor where work on blouses supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished blouses for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the blouses shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

A-6 Any applications for deviations from drawings or the specification, or any laid down process, treatment or procedures as set out in this specification, must be made to the SA Navy Office, Pretoria.

Documentation

One container of each consignment shall be marked "Documents" and shall, in addition to the blouses, contain the following

1) The packing slip/delivery note;
2) where applicable, the certificate(s) of conformance; and
3) a copy of the invoice containing the following:
   a) The order number
   b) The financial authority number
   c) a full description of the consignment, i.e. items, size(s), quantity, etc.