

PRIVATE SPECIFICATION

Prepared for



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER 

UNISEX TECHNICAL AND CARGO GOLF SHIRT, SHORT SLEEVE



Item Number: TM15

Document Number: SAA 1011

Version 03.0/April 2014

1. Scope

This specification¹ covers the material and make of short sleeved sports-type (golf shirts) for personnel of the South African Airways.

2. Definitions and Abbreviations

For the purpose of this specification the definitions given in SANS 10371 "Terms and definitions for clothing" and the following shall apply:

acceptable: acceptable to South African Airways

nominal: subject to the tolerances normal to good manufacturing practice

SANS: South African National Standard

3. Style

The style is as follows:

- ♦ two button placket opening
- ♦ knitted collar (turn down)
- ♦ fitted with a patch pocket on the left chest with embroidery
 - the embroidery shall be the registered SAA logo
- ♦ bottom hem to be cover seamed
- ♦ short sleeves with plain cuffs

¹ This private specification has been compiled by National Private Specifications (Pty) Ltd. privatespecs@vodamail.co.za

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4. Illustrations

Illustrations are not to scale and are for guidance only.

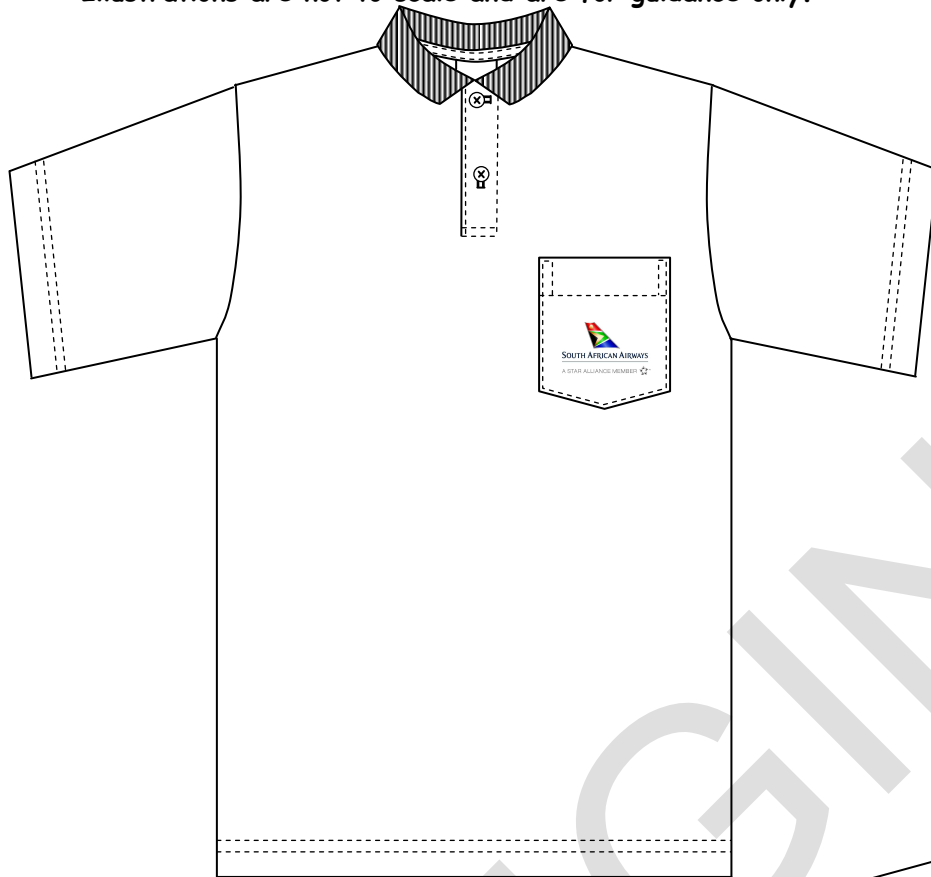


Figure 1 – Front of short sleeve shirt

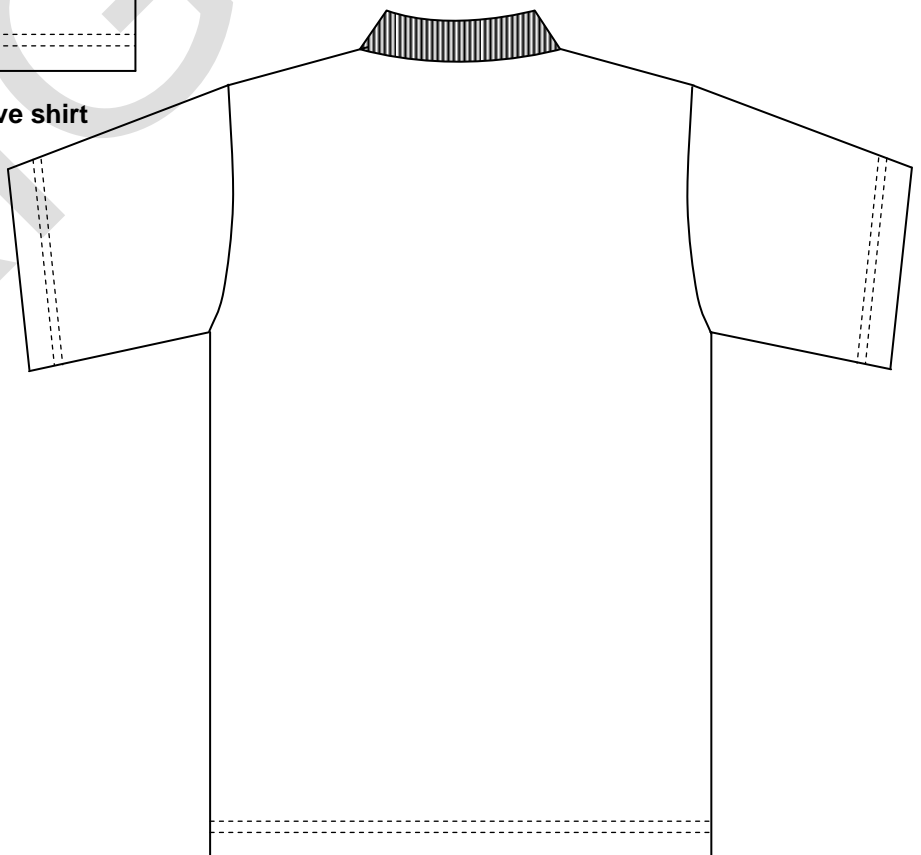


Figure 2 – Back of short sleeve shirt

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5. Client Furnished Materials

No materials will be supplied by South African Airways.

6. Component Materials

The following materials shall be supplied and used by the manufacturer. Trim charts shall also be submitted by the manufacturer (see Annex A).

NOTE: All components listed below shall be manufactured in the Republic of South Africa. In instances where the raw material and/or finished components are not available in the Republic of South Africa, the onus shall be on the bidder to apply for exemption certificates from DTI. Exemption certificates, where relevant, shall be submitted together with each bid.

6.1 Knitted outer material

- the outer material shall comply with the requirements as given in table 1
- colour to be an acceptable royal blue as agreed upon between SAA and the successful tenderer

Table 1 – Knitted outer material and knitted collar requirements

1	2	3
Property	Requirement	SANS number (unless otherwise indicated)
Fibre composition		1833 -1 and 1833-11
Polyester	65 ± 3	
Cotton ^a	35 ± 3	
Construction		Visual examination and physical analysis
Body and sleeves	Double Lacoste	
Collar	1 x 1 rib	
Mass per area, g/m², min.		5385
Body and sleeves	220	
Dimensional change on laundering		960
%, max.		washing procedure A1
Length	7	drying procedure F
Width	7	
Colour fastness to:		
Washing, rating, min.		105-C10
Change in colour	4	test B(2)
Staining	4	
Perspiration, rating, min.		105-E04
Change in colour	4	
Staining	4	
Light, rating, min.	5	105-B02

^a Combed cotton.

6.2 Knitted collar material

- to comply with the relevant requirements as given in table 1
- colour to be an acceptable dark navy as agreed upon between SAA and the successful tenderer

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6.3 Interlining

- ♦ an acceptable fusible knitted interlining
- ♦ to comply with the requirements of CKS 627 “Fusible interlinings”
- ♦ mass per area shall be such that it is suitable for use in the placket and pocket
- ♦ colour to be an acceptable match to the colour of the outer material
- ♦ suitable for use in garments which are to be washed
 - capable of withstanding the same washing and drying procedures as specified for the outer material

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

6.4 Buttons

- ♦ four-hole polyester
- ♦ nominal diameter of 12 mm
- ♦ to comply with the requirements of SANS 1457 “Plastics buttons”
- ♦ dope-dyed
- ♦ fully impregnated
- ♦ colour to be an acceptable match to the colour of the outer material

6.5 Stay tape

- ♦ an acceptable pre-shrunk woven tape of nominal width 10 mm OR outer material strips that are capable of stabilizing the shoulder seams and prevent the shoulder seams from stretching
- ♦ colour to be an acceptable match to the knitted outer material

6.6 Threads

- ♦ to comply with relevant requirements of SANS 1362 “Sewing threads”
- ♦ colour to be an acceptable match to the colour of the outer material

Sewing and buttonhole thread:

- ♦ polyester-and-cotton core-spun, ticket No 75 **OR** staple polyester thread, ticket No 60

Overlocking thread:

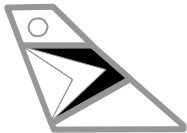



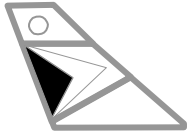

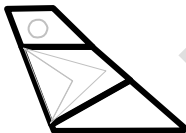

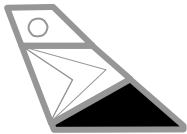



- ♦ a crimp-textured polyester thread **OR** spun polyester thread

6.7 Embroidery thread

- ♦ an acceptable 100% Viscose machine embroidery thread
- ♦ colours to be as given in table 2

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Table 2 – Pantone colours of embroidery thread

  Pantone 348c “Green”	  Pantone 123c “Yellow Gold”
  Pantone 334c “Black”	  Pantone White
  Pantone 662c “Blue”	  Pantone 1797c “Red”
ALL WORDING: Pantone White	

7. Workmanship

The golf shirts 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:

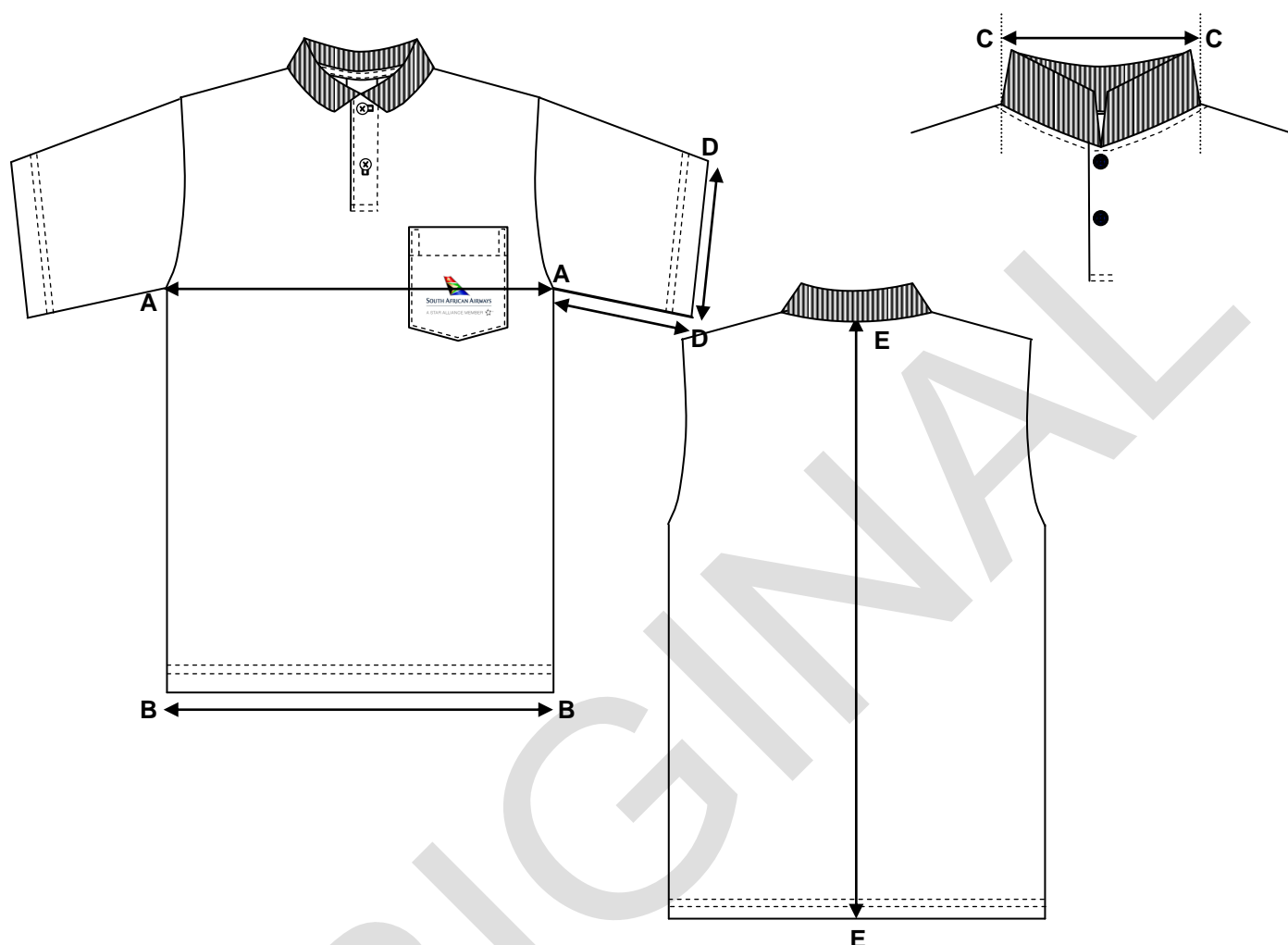
- ♦ smooth and uniform
- ♦ free from twists, pleats and puckers
- ♦ sufficiently extensible to avoid seam cracking and undue shrinkage in use

Ends of sewing shall be:

- ♦ trimmed and loose threads removed
- ♦ back-tacked if unsecured

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8. Sizes and dimensions



MEASURING POINT		DESCRIPTION
A – A	Chest circumference	Measure across the width of the garment at the base of the scye, with the garment spread completely flat, and multiply by two.
B – B	Bottom hem circumference	Measure across the width of the garment at the bottom hem, with the garment spread completely flat, and multiply by two.
C – C	Neck circumference	Measure in a straight line, from one neck point to the other, with buttons fastened, and multiply by two.
D – D	Cuff circumference	Measure at the outer edge of the cuff and multiply by two.
E – E	Back length	Measure from the collar-to-body seam at the centre back to the bottom hem of the shirt.
A – D	Sleeve length	Measure along the underarm seam, from the base of the scye to the outer edge of the cuff.

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Table 3 – Size range

1	2	3	4	5	6	7
Size designation ¹	Nominal finished garment measurements, cm					
	Circumference				Back length	Sleeve underarm
	Chest	Bottom hem	Neck	Cuff		
X-Small 72-77	90	90	36	36	68	15
Small 82-87	100	100	38	38	70	16
Medium 92-97	110	110	40	40	72	17
Large 102-107	120	120	42	42	74	18
X-Large 112-117	130	130	44	44	76	19
2X-Large 122-127	140	140	46	46	78	20
3X-Large 132-137	150	150	48	46	80	20
1) Based on the chest circumference of the wearer in centimetres.						

9. Make

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

9.1 Front

The front to:

- ♦ have a two button placket opening
- ♦ be fitted with a patch pocket

9.2 Back

The back to:

- ♦ be plain

9.3 Shoulder seams

The shoulder seams to:

- ♦ be stayed with stay-tape **OR** with outer material strips
 - outer material strips to be of finished width 10 mm (cut in the direction of the courses)
 - be sewn in with the shoulder seams to stabilize the seam (prevent it from stretching)

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9.4 Sleeves

- ♦ set-in
- ♦ short
- ♦ seamed under the arms
- ♦ plain cover seamed hem of finished width 20 mm

9.5 Collar

The collar to:

- ♦ be of knitted collar material (see table 1)
- ♦ be of finished depth 70 mm
- ♦ extend from the centre front of the left placket to the centre front of the right placket
- ♦ such that the seam joining the collar to the body shall be covered with a knitted outer material strip
 - of finished width 10 mm
 - cut in the direction of the courses

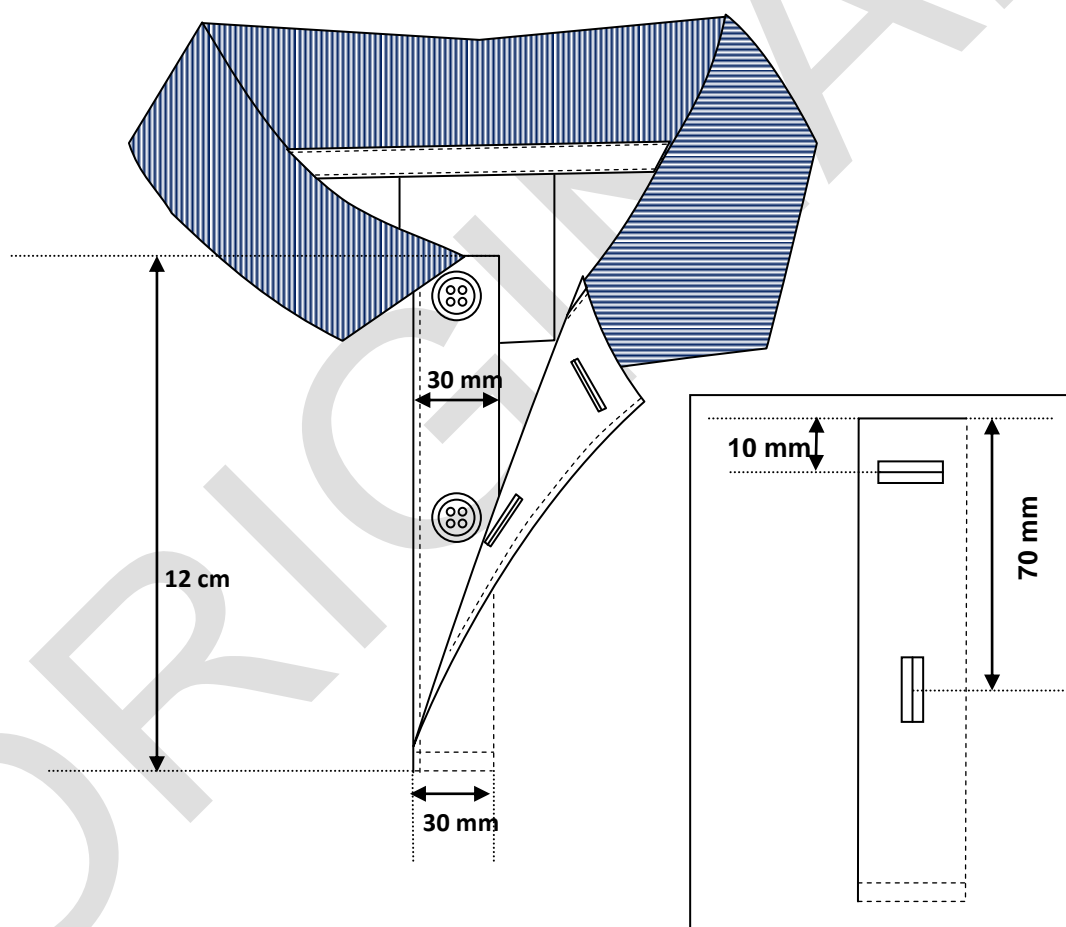


Figure 5 – Placket and buttonhole positioning

9.6 Placket

- ♦ such that it shall fasten left over right
- ♦ left placket
 - to be lined with outer material
 - interlined with interlining
 - of finished width 30 mm
 - folded in along the inner raw edges
 - sewn down 2 mm and 28 mm from the seamed edge
 - fitted with two buttonholes

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- ♦ right placket
 - of double folded outer material
 - interlined with interlining
 - sewn down 2 mm from the seamed edge
 - of finished width 30 mm
 - folded in along the inner raw edges
 - fitted with two buttons
- ♦ of finished length 12 cm

9.7 Buttonholes

Buttonholes to be:

- ♦ neatly made and barred at each end
- ♦ shirt type buttonholes
- ♦ of such length as to neatly accommodate the buttons
- ♦ 2 in total
- ♦ centrally positioned in the left placket
 - top buttonhole to be horizontal
 - second buttonhole to be vertical
- ♦ positioned as given in figure 5

9.8 Buttons

The buttons shall:

- ♦ be in corresponding positions to that of the buttonholes
- ♦ positioned on the underlapping right placket
- ♦ 2 in total and properly secured

9.9 Pocket

The pocket to:

- ♦ be of knitted outer material
- ♦ fully interlined with interlining
- ♦ be a patch pocket
- ♦ be positioned on the left front
- ♦ have a mitred point at the base
- ♦ be of finished width and depth as given in table 4
- ♦ have a finished pocket mouth depth of 20 mm
 - stitched down
 - mouth ends to be vertically box-tacked along the full depth of the mouth hem
- ♦ be turned in 10 mm along the side and bottom edges and edge-stitched 2 mm along the outer edges
- ♦ positioned with front edges parallel to centre front
- ♦ be positioned as follows on size Large and graded on the smaller and larger sizes
 - 24 cm below the neck point (see figure 7)
- ♦ fitted with embroidery

Table 4 – Pocket dimensions

NOTE: If pocket does not fit on the small sizes, it may be reduced proportionally in consultation with SABS.

1	2	3	
Size designation	Width	Depth at the point	Depth at the side
X-Small to Large	12,5 cm	13,5 cm	11 cm
X-Large to XXX-Large	13,5 cm	14,5 cm	12 cm

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9.10 Embroidered design

The design to be:

- ◆ the registered South African Airways logo (see figure 6)
- ◆ embroidered with embroidery thread and positioned as given in figure 6
- ◆ to incorporate 6 different colours (see table 2)
- ◆ centrally positioned
- ◆ of dimensions as given in figure 6

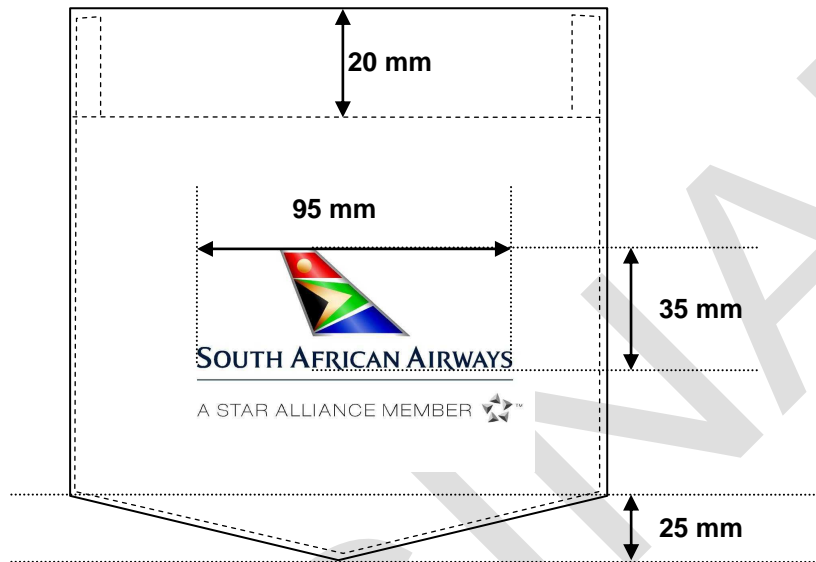
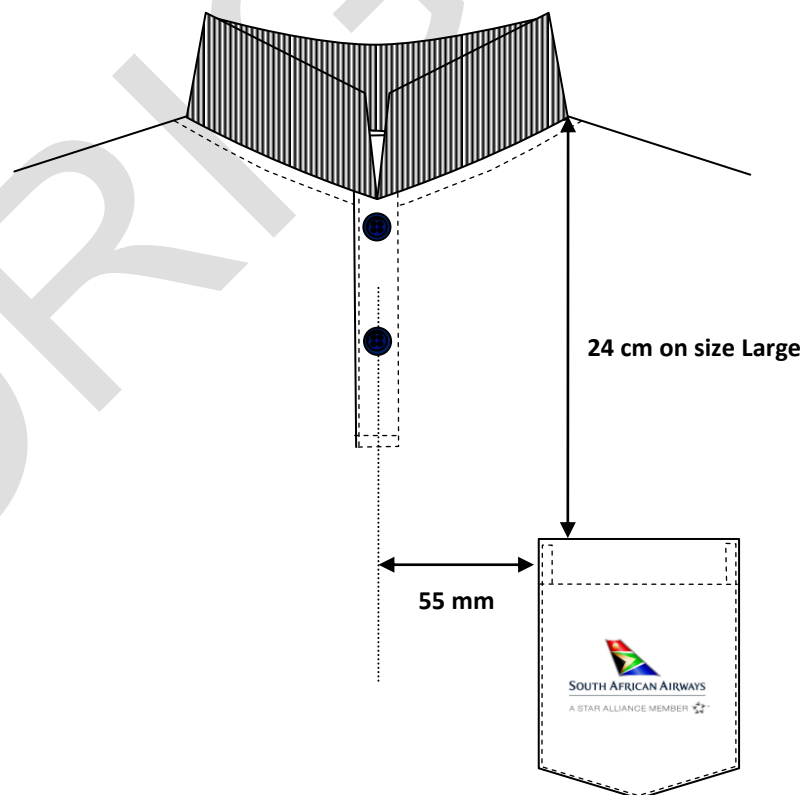


Figure 6 – Pocket



NOTE: The positioning from centre front will be graded for a grouping of sizes.

Figure 7 – Pocket positioning on size Large (to be graded)

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9.11 Bottom hem

The bottom hem shall be:

- ♦ straight
- ♦ be cover seamed
- ♦ of finished width 30 mm

10. Stitches, Seams and Stitchings

10.1 Stitches

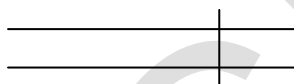
main seaming and overlocking: four-thread overlocking stitch

other stitches: single needle lock stitch

10.2 Seams

Seams to be at least 7 mm wide (unless otherwise stated):

Side, underarm and sleeve-insertion seams: seam type SSa-1



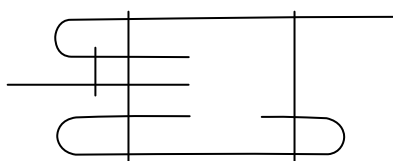
Superimpose two or more plies of material and seam with one row of stitches positioned at the specific distance(s) from the aligned edges.

Shoulder seam: seam type SSab-1



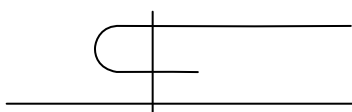
Superimpose a strip on two plies of material and seam with the appropriate number of rows of stitches (positioned at the specified distance(s) from the aligned edges).

Attachment of binding over collar seam: seam type LSax-3 (amended)



Form seam Type SSa-1, using two plies of material. Then turn the top ply back at the seam, superimpose the assembly on a strip (with turned-in edges), and seam with two rows of stitches, one of which pass through the folded edges of the top ply and the strip.

Attachment of pocket: seam type LSd-1

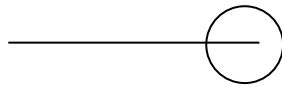


Turn in the edge of one ply of material, lap it on the body of a second ply (at the specified distance from the edge of the second ply), and seam with the appropriate number of rows of stitches.

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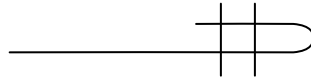
10.3 Stitchings

Inside edge of placket: stitching type EFd-1



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

Sleeve hem of short sleeved shirt and bottom hem: stitching type EFa-2



Turn in the specified width at the edge of a ply of material and stitch the turned edge with the appropriate number of rows of stitches.

10.4 Number of stitches

The determination of sewing stitches per unit length will be done in accordance with SANS 5278 "Sewing stitches per unit length"

All seams and stitchings: 40 ± 4 per 10 cm

buttonholes: 12 ± 1 per 1 cm

button: 16 ± 1 per button

11. Garment labels

NOTE: Tender samples shall be fitted with a printed label displaying the manufacturer's name or trade mark and size.

11.1 Label identification

Each garment shall be fitted with the labels as given in table 7:

Table 7 – Label identification

Type		Requirements
1.	a woven logo jacquard label	See 11.2
2.	a woven jacquard size label	See 11.3
3.	a garment specific printed woven fabric label*	See 11.4
4.	a care-label*	See 11.5
5.	a paperboard swing tag	See 11.6

*These two labels may be separate labels or a single loop label.

11.2 Jacquard logo label

Each label shall:

- ♦ be a woven jacquard label

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- ◆ edges to be properly finished to prevent fraying
- ◆ information to be in legible and indelible block letters of height at least 3 mm
- ◆ permanently secured and sewn in with the collar seam on the inside at centre back
- ◆ be such that it shall outlast the garment
- ◆ include the following information:
 - the manufacturer's name or trade mark or both
 - the registered full-colour SAA logo at top of label (see figure below)



11.3 Jacquard size label

Each label shall:

- ◆ be a woven jacquard loop label
- ◆ edges to be properly finished to prevent fraying
- ◆ information to be in legible and indelible block letters of height at least 3 mm
- ◆ sewn together with the side edge of the jacquard logo label
- ◆ be such that it shall outlast the garment

11.4 Printed garment labels

Each label shall:

- ◆ be white woven rayon label that is printed
- ◆ comply with SANS 1309 "Printed labels for textiles"
 - information to be in legible and indelible block letters of height at least 3 mm
- ◆ permanently secured and sewn to the back facing
- ◆ be such that they outlast the garments (including the markings)
- ◆ include the following information:
 - the item number
 - order number
 - the year and month of manufacture
 - the VAT no of the contractor
 - the country of origin, i.e. "Made in the RSA"

11.5 Printed care-labelling

Each label shall:

- ◆ be white woven rayon label that is printed
- ◆ comply with SANS 1309 "Printed labels for textiles"
 - information to be in legible and indelible block letters of height at least 3 mm
- ◆ permanently secured to the side seam
- ◆ be such that they outlast the garments (including the markings)
- ◆ to provide appropriate care instructions (in accordance with SANS 10011 "Care-labelling of textile piece-goods, textile articles and clothing") in words and symbols
- ◆ provide the fibre composition of the fabric in accordance with the requirements of SANS 10235 "Fibre content labelling of textiles and textile products"

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11.6 Printed swing tags

Each swing tag shall:

- ♦ be a white cardboard printed label
- ♦ information to be in legible and indelible block letters of height at least 3 mm
- ♦ include the following information:
 - the size designation
 - the item number
 - the item description
 - the month and year of manufacture
 - the order number

12. Packaging and marking of packaging

12.1 Packing

12.1.1 The shirts shall be:

- ♦ delivered in a pressed and commercially dry condition
- ♦ so packed that they will not be damaged in transit or in storage
- ♦ individually packed in a plastics envelope of suitable size and shape
- ♦ unless otherwise specified in the order or contract, acceptably packed for transportation in bulk containers

12.1.2 Shirts:

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

12.2 Marking

12.2.1 Plastics envelopes

Each envelope to be clearly marked with the following information:

- ♦ the item number
- ♦ the item description
- ♦ size designation
- ♦ the order number
- ♦ month and year of manufacture

12.2.2 Bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the information in legible and indelible markings as follows:

- ♦ the manufacturer's name or trade mark or both
- ♦ the order number or contract number
- ♦ the item description
- ♦ the item number
- ♦ the size designation
- ♦ the quantity of the item
- ♦ the **month and year** of manufacture
- ♦ the order number
- ♦ the box number, e.g. "1 of 5"

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- ♦ the total mass of the packed container
- ♦ the Inspection Certificate Number

12.3 Additional marking

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

13. Normative References

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

CKS 129, *Colours for textiles.*

CKS 627, *Fusible interlinings.*

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

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

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

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

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1457, *Plastics buttons.*

SANS 1833-1/ISO 1833-1, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulphuric acid).*

SANS 5385, *Mass per unit area of conditioned knitted textiles.*

SANS 5278, *Sewing stitches per unit length.*

SANS 10011, *Care-labelling of textile piece-goods, textile articles and clothing.*

SANS 10076-4, *The assessment of defects in textile piece-goods and made-up articles Part 4: Defects in knitted piece-goods.*

SANS 10235, *Fibre-content labelling of textiles and textile products.*

SANS 10371, *Terms and definitions for clothing.*

* Standards South Africa: Tel. +27 (0) 12 4287911

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ANNEX A

(Normative)

Special conditions of tender

A-1 GENERAL

A-1.1 Unless otherwise stated, the South African Bureau of Standards shall be the inspecting authority.

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 Airways and verified by the SABS². All applications must be submitted in writing.

A-1.2 Three pre-production sample shirts in different sizes, 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. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-1.3 The shirts 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 shirts supplied to this specification may be in progress

A-1.4 The contractor shall inspect the finished shirts for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-1.5 Before acceptance, the shirts shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

A-2 DOCUMENTATION

One container of each consignment shall be marked "DOCUMENTS" and in addition to the shirts, shall contain the following:

- a) The packaging slip or delivery note;
- b) where applicable the inspection certificate(s);
- c) a copy of the invoice containing the following information:
 - the order number
 - the financial authority number
 - a full description of the consignment, i.e. Order Number, quantity, etc

² SABS Inspection Authority: (Tel) 012 4287371;

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ANNEX B
(Normative)
CKS 129 Colours

Due to the fact that colours can change over a period of time, any colour standard which has been registered for a period of SEVEN YEARS or more shall be considered obsolete. These standards shall then be allocated an archived status (as opposed to current status) and re-registration shall be required.

A. The following scenarios require a submission of three metres of fabric and/or a reel of embroidery thread from the successful tenderer:

1. A colour standard is archived.
2. First time registration is required (CKS 129 colour number does not exist).
3. Colour swatch stock at the SABS is no longer available.

B. Requirements for the submission of fabric as identified in A:

1. The colour shall be as agreed upon between South African Airways and the successful tenderer.
2. The fabric and embroidery thread shall be used to make new colour swatches which shall be the responsibility of the SABS.
3. The cost of the three metres of fabric and embroidery thread shall be incorporated in the relevant tender submission.

HISTORY SHEET				
DOC ISSUE	DATE	AMENDMENTS/HISTORY	CHECKED	
			NAME	INIT.
1	June 2010	First release		
2	April 2014	New outer material. Colour of collar to be navy Changed size chart Change position of pocket Change length of placket Delete long sleeve shirt Delete embroidery logo variations, just one generic one		

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